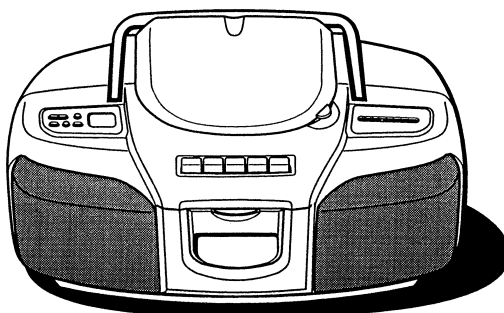


# CSD-A120

U(S),K(S)  
HS(S),HRJ(S)  
EZ(S),LH(S)  
HRJ(L),HRJ(P)

# CSD-A140

LH(S)



# SERVICE MANUAL

---

COMPACT DISC STEREO  
CASSETTE RECEIVER

BASIC TAPE MECHANISM : TN-9ZR-219  
BASIC CD MECHANISM : DA11T3C

---

## SPECIFICATIONS

### 120HR, K, E, HS MODEL

#### Tuner section

Frequency range, antenna — FM: 87.5 - 108.0 MHz  
Rod antenna, AM: 530 - 1,605 kHz Ferrite bar antenna

#### Deck section

Track format — 4 tracks, 2 channels / Frequency range — Normal tape: 50 - 8,000 Hz (EIAJ) / Recording system — AC bias / Erasing system — Magnet erase / Heads — Recording/playback head (1), Erasure head (1)

#### CD player section

Disc — Compact disc / Scanning method — Non-contact optical scanner (semiconductor laser)

#### General (120HR MODEL)

Speaker — 100 mm cone type (2) / Output — Headphones jack (stereo mini-jack) / Power output — 1.5 W + 1.5 W (EIAJ 8 ohms, T.H.D. 10% DC), 1.2 W + 1.2 W (DIN 1% Rated Power) / Power requirements — DC 12 V using eight size D (R20) batteries, AC 110-120 V/220-240V switchable, 50/60 Hz / Power consumption — 12 W / Dimensions (W × H × D) — 370 × 193 × 219 mm / Weight — 2.35 kg (excluding batteries)

#### General (120K MODEL)

Speaker — 100 mm cone type (2) / Output — Headphones jack (stereo mini-jack) / Power output — 1.5 W + 1.5 W (EIAJ 8 ohms, T.H.D. 10% DC), 1.2 W + 1.2 W (DIN 1% Rated Power) / Power requirement — DC 12 V using eight size D (R20) batteries, AC 230 V / Power consumption — 13 W / Dimensions (W × H × D) — 370 × 193 × 219 mm / Weight — 2.35 kg (excluding batteries)

#### General (120E MODEL)

Speaker — 100 mm cone type (2) / Output — Headphones jack (stereo mini-jack) / Power output — 3.2 W + 3.2 W (DIN MUSIC POWER), 1.5 W + 1.5 W (EIAJ 8 ohms, T.H.D. 10% DC), 1.2 W + 1.2 W (DIN 1% Rated Power) / Power requirements — DC 12 V using eight size D (R20) batteries, AC 230 V, 50 Hz / Power consumption — 13 W / Dimensions (W × H × D) — 370 × 193 × 219 mm / Weight — 2.35 kg (excluding batteries)

#### General (120HS MODEL)

Speaker — 100 mm cone type (2) / Output — Headphones jack (stereo mini-jack) / Power output — 1.5 W + 1.5 W (EIAJ 8 ohms, T.H.D. 10% DC) / Power requirements — DC 12 V using eight size D (R20) batteries, AC 220 V, 60 Hz / Power consumption — 12 W / Dimensions (W × H × D) — 370 × 193 × 219 mm / Weight — 2.35 kg (excluding batteries)

- Design and specifications are subject to change without notice.

### 120LH, 140LH MODEL

#### Tuner section

Frequency range, antenna — FM: 87.5 - 108.0 MHz  
Rod antenna, AM: 530 - 1,710 kHz Ferrite bar antenna

#### Deck section

Track format — 4 tracks, 2 channels / Frequency range — Normal tape: 50 - 8,000 Hz (EIAJ) / Recording system — AC bias / Erasing system — Magnet erase / Heads — Recording/playback head (1), Erasure head (1)

#### CD player section

Disc — Compact disc / Scanning method — Non-contact optical scanner (semiconductor laser)

#### General

Speaker — 100 mm cone type (2) / Output — Headphones jack (stereo mini-jack) / Power output — 1.5 W + 1.5 W (EIAJ 8 ohms, T.H.D. 10% DC), 1.2 W + 1.2 W (DIN 1% Rated Power) / Power requirements — DC 12 V using eight size D (R20) batteries, AC 110-120 V/220-240V switchable, 50/60 Hz / Power consumption — 12 W / Dimensions (W × H × D) — 370 × 193 × 219 mm / Weight — 2.35 kg (excluding batteries)

- Design and specifications are subject to change without notice.

### 120U MODEL

#### Tuner section

Frequency range, antenna — FM: 87.5 - 108.0 MHz  
Rod antenna, AM: 530 - 1,710 kHz Ferrite bar antenna

#### Deck section

Track format — 4 tracks, 2 channels / Frequency range — Normal tape: 50 - 8,000 Hz (EIAJ) / Recording system — AC bias / Erasing system — Magnet erase / Heads — Recording/playback head (1), Erasure head (1)

#### CD player section

Disc — Compact disc / Scanning method — Non-contact optical scanner (semiconductor laser)

#### General

Speaker — 100 mm cone type (2) / Output — Headphones jack (stereo mini-jack) / Power output — 1.5 W + 1.5 W (EIAJ 8 ohms, T.H.D. 10% DC) / Power requirements — DC 12 V using eight size D (R20) batteries, AC 120 V, 60 Hz / Power consumption — 11 W / Dimensions (W × H × D) — 370 × 193 × 219 mm (14<sup>5</sup>/<sub>8</sub> × 7<sup>5</sup>/<sub>8</sub> × 8<sup>5</sup>/<sub>8</sub> in.) / Weight — 2.35 kg (5 lbs. 3 oz.) (excluding batteries)

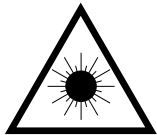
- Design and specifications are subject to change without notice.

## PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs laser. Therefore, be sure to follow carefully the instructions below when servicing.

### WARNING!

WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION. BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.



- Caution: Invisible laser radiation when open and interlocks defeated avoid exposure to beam.
- Advarsel: Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

### VAROITUS!

Laiteen Käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saattaa altistaa käyttäjän turvallisuusluokan 1 ylitävälle näkymättömälle lasersäteilylle.

### WARNING!

Om apparaten används på annat sätt än vad som specificeras i denna bruksanvisning, kan användaren utsättas för osynlig laserstrålning, som överskrider gränsen för laserklass 1.

### CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

### ATTENTION

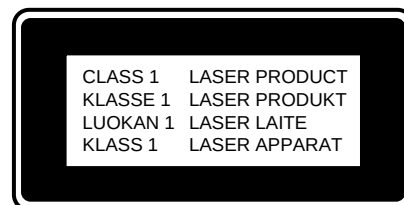
L'utilisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

### ADVARSEL!

Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

This Compact Disc player is classified as a CLASS 1 LASER product.

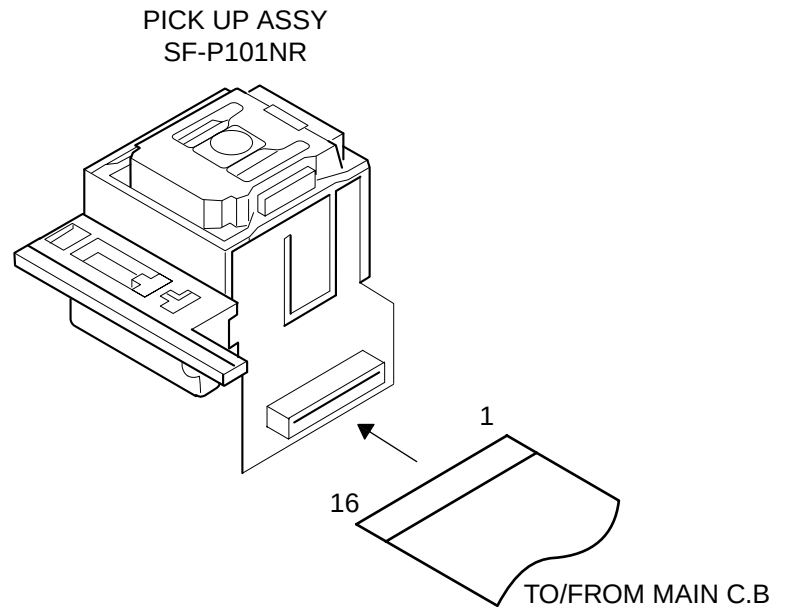
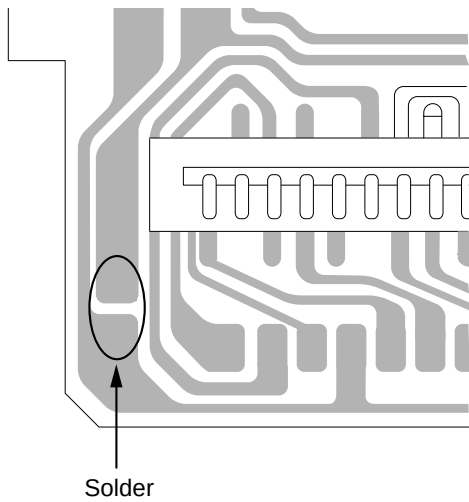
The CLASS 1 LASER PRODUCT label is located on the rear exterior.



## Precaution to replace Optical block (SF-P101NR)

Body or clothes electrostatic potential could ruin laser diode in the optical block. Be sure ground body and workbench, and use care the clothes do not touch the diode.

- 1) After the connection, remove solder shown in the right figure.



# ELECTRICAL MAIN PARTS LIST-1/3

| REF. NO    | PART NO.       | KANRI NO.                              | DESCRIPTION | REF. NO | PART NO.       | KANRI NO. | DESCRIPTION                             |
|------------|----------------|----------------------------------------|-------------|---------|----------------|-----------|-----------------------------------------|
| IC         |                |                                        |             | C127    | 87-A12-365-080 |           | CAP,M 0.012-100 J CP<EXCEPT KSC,EZSC>   |
|            | 87-A21-271-010 | IC,TA2111N<USC>                        |             | C127    | 87-A12-362-080 |           | CAP,M 6800P-100 J CP<KSC,EZSC>          |
|            | 87-A20-212-010 | IC,TA8127N<EXCEPT USC>                 |             | C128    | 87-A12-365-080 |           | CAP,M 0.012-100 J CP                    |
|            | 87-A20-569-010 | IC,BA3308                              |             |         |                |           | <EXCEPT KSC,EZSC,140LHSC>               |
|            | 8B-CDC-618-010 | C-IC,LA9250ML                          |             | C128    | 87-A12-362-080 |           | CAP,M 6800P-100 J CP<KSC,EZSC>          |
|            | 8B-CDC-619-010 | C-IC,LC78602E                          |             | C129    | 87-A10-577-010 |           | CAP,CER 0.022-50 Z YF                   |
|            |                |                                        |             | C130    | 87-A10-577-010 |           | CAP,CER 0.022-50 Z YF<EXCEPT USC>       |
|            | 8B-CDC-636-010 | C-IC,MM1469XH                          |             | C140    | 87-A11-145-080 |           | CAP,TC U 0.01-50 Z F<EXCEPT 140LHSC>    |
|            | 8B-CDC-621-010 | IC,UTC6650                             |             | C141    | 87-A11-148-080 |           | CAP,TC U 0.1-50 Z F<EXCEPT USC,140LHSC> |
|            | 87-A21-193-010 | IC,TA8227P                             |             | C142    | 87-A11-145-080 |           | CAP,TC U 0.01-50 Z F<EXCEPT 140LHSC>    |
|            | 87-A21-241-010 | IC,MC14551BCP<140LHSC>                 |             | C143    | 87-A10-176-010 |           | CAP,CER 1000P-50 M D<USC>               |
| TRANSISTOR |                |                                        |             | C144    | 87-A11-145-080 |           | CAP,TC U 0.01-50 Z F<USC>               |
|            | 8B-CDC-616-010 | TR,3CG9012                             |             | C145    | 87-A11-145-080 |           | CAP,TC U 0.01-50 Z F<USC>               |
|            | 8B-CDC-611-010 | TR,2SD1936                             |             | C152    | 87-A11-145-080 |           | CAP,TC U 0.01-50 Z F<USC>               |
|            | 8B-CDC-617-010 | TR,3DG9013                             |             | C155    | 87-A10-176-010 |           | CAP,CER 1000P-50 M D                    |
|            | 89-318-155-080 | TR,2SC1815GR                           |             |         |                |           | <EXCEPT USC,140LHSC>                    |
|            | 8A-RU2-602-010 | TR,3DA8050                             |             | C180    | 87-010-248-010 |           | CAP, ELECT 220-10V                      |
|            | 87-A30-015-080 | TR,2SA1317(T/U)                        |             | C313    | 87-010-401-080 |           | CAP, ELECT 1-50V                        |
|            | 87-026-215-080 | TR,DTC114YS                            |             | C314    | 87-010-401-080 |           | CAP, ELECT 1-50V                        |
|            | 8B-CDC-613-010 | TR,2SA1346                             |             | C361    | 87-010-248-010 |           | CAP, ELECT 220-10V                      |
|            | 8B-CDC-614-010 | TR,2SB764                              |             | C362    | 87-010-263-080 |           | CAP, ELECT 100-10V                      |
|            | 8A-RU2-604-010 | TR,3CA8550                             |             | C401    | 87-010-405-080 |           | CAP, ELECT 10-50V                       |
|            | 8B-RD3-607-010 | TR,2SB562B                             |             | C402    | 87-A10-182-010 |           | CAP,CER 0.01-50 Z F                     |
|            | 87-A30-090-080 | FET,2SK2541                            |             | C403    | 87-010-248-080 |           | CAP, ELECT 220-10V                      |
|            | 87-A30-168-010 | TR,2SB1566F                            |             | C403    | 87-010-248-080 |           | CAP, ELECT 220-10V                      |
|            |                |                                        |             | C404    | 87-010-260-080 |           | CAP, ELECT 47-25V                       |
|            |                |                                        |             | C405    | 87-A10-182-010 |           | CAP,CER 0.01-50 Z F                     |
| DIODE      |                |                                        |             | C406    | 87-010-263-080 |           | CAP, ELECT 100-10V                      |
|            | 87-070-345-080 | DIODE,IN4148                           |             | C407    | 87-010-546-080 |           | CAP, ELECT 0.33-50V                     |
|            | 8Z-CA3-615-010 | DIODE,1S2638<EXCEPT USC>               |             | C408    | 87-A10-182-010 |           | CAP,CER 0.01-50 Z F                     |
|            | 8B-CDC-631-010 | ZENER,BZX55C6V8CECCL                   |             | C409    | 87-010-263-080 |           | CAP, ELECT 100-10V                      |
|            | 8B-CDC-622-010 | DIODE,GMB01                            |             | C410    | 87-A12-370-080 |           | CAP,M 0.033-100 J CP                    |
|            | 87-020-465-080 | DIODE,1SS133(T-72)<USC>                |             | C411    | 87-010-405-080 |           | CAP, ELECT 10-50V                       |
|            | 8B-CDC-630-010 | ZENER,WZ-033                           |             | C413    | 87-010-263-080 |           | CAP, ELECT 100-10V                      |
|            | 87-A40-398-010 | DIODE,1N4001                           |             | C414    | 87-010-402-080 |           | CAP, ELECT 2.2-50V                      |
|            |                |                                        |             | C415    | 87-A12-370-080 |           | CAP,M 0.033-100 J CP                    |
|            |                |                                        |             | C419    | 87-A10-182-010 |           | CAP,CER 0.01-50 Z F                     |
| MAIN C.B   |                |                                        |             | C420    | 87-010-402-080 |           | CAP, ELECT 2.2-50V                      |
|            | 87-A11-875-010 | CAP,CER 24P-50 J SL<USC>               |             | C424    | 87-A12-370-080 |           | CAP,M 0.033-100 J CP                    |
|            | 87-A11-849-080 | CAP,CER 27P-50 J CH<EXCEPT USC>        |             | C426    | 87-010-544-080 |           | CAP, ELECT 0.1-50V                      |
|            | 87-A11-875-010 | CAP,CER 24P-50 J SL                    |             | C427    | 87-A10-179-010 |           | CAP,CER 3300P-50 M E                    |
|            | 88-254-242-010 | CAP,CER 30P-50 J CH HE50S JCH          |             | C428    | 87-A12-371-080 |           | CAP,M 0.039-100 J CP                    |
|            | 87-A10-577-010 | CAP,CER 0.022-50 Z YF                  |             | C429    | 87-A11-782-080 |           | CAP,M 0.1-100 J                         |
|            | 87-A10-139-010 | CAP,CER 18P-50 K CH<EXCEPT USC>        |             | C430    | 87-A11-782-080 |           | CAP,M 0.1-100 J                         |
|            | 88-RU7-634-010 | CAP,CER 20P-50 J CH<USC>               |             | C431    | 87-A10-176-010 |           | CAP,CER 1000P-50 M D                    |
|            | 87-A10-577-010 | CAP,CER 0.022-50 Z YF<USC>             |             | C432    | 87-A11-782-080 |           | CAP,M 0.1-100 J                         |
|            | 88-RU7-634-010 | CAP,CER 20P-50 J CH                    |             | C433    | 87-A12-370-080 |           | CAP,M 0.033-100 J CP                    |
|            |                | <EXCEPT 120LHSC,140LHSC>               |             | C434    | 87-A10-179-010 |           | CAP,CER 3300P-50 M E                    |
|            | 87-A11-847-080 | CAP,CER 22P-50 J CH<140LHSC>           |             | C436    | 87-010-545-080 |           | CAP, ELECT 0.22-50V                     |
|            | 87-A11-848-080 | CAP,CER 24P-50 J CH<120LHSC>           |             | C437    | 87-010-401-080 |           | CAP, ELECT 1-50V                        |
|            | 87-A10-129-010 | CAP,CER 3P-50 K CH                     |             | C438    | 87-A10-179-010 |           | CAP,CER 3300P-50 M E                    |
|            | 87-A10-577-010 | CAP,CER 0.022-50 Z YF<120LHSC,140LHSC> |             | C439    | 87-010-260-080 |           | CAP, ELECT 47-25V                       |
|            | 87-010-265-080 | CAP, ELECT 33-16V                      |             | C440    | 87-A11-782-080 |           | CAP,M 0.1-100 J                         |
|            | 87-010-400-010 | CAP, ELECT 0.47-50SME<EXCEPT USC>      |             | C441    | 87-A10-577-010 |           | CAP,CER 0.022-50 Z YF                   |
|            | 87-010-400-010 | CAP, ELECT 0.47-50SME                  |             | C442    | 87-010-221-080 |           | CAP, ELECT 470-10V                      |
|            | 87-A10-176-010 | CAP,CER 1000P-50 M D<EXCEPT USC>       |             | C443    | 87-A10-182-010 |           | CAP,CER 0.01-50 Z F                     |
|            | 87-A11-146-080 | CAP,TC U 0.022-50 Z F<USC>             |             | C444    | 87-010-263-080 |           | CAP, ELECT 100-10V                      |
|            | 87-010-401-080 | CAP, ELECT 1-50V<EXCEPT USC>           |             | C445    | 87-A10-577-010 |           | CAP,CER 0.022-50 Z YF                   |
|            | 87-010-401-080 | CAP, ELECT 1-50V<USC>                  |             | C448    | 87-010-544-080 |           | CAP, ELECT 0.1-50V                      |
|            | 87-010-403-080 | CAP, ELECT 3.3-50V<EXCEPT USC>         |             | C453    | 87-A10-577-010 |           | CAP,CER 0.022-50 Z YF                   |
|            | 87-010-400-010 | CAP, ELECT 0.47-50SME<USC>             |             | C454    | 87-010-263-080 |           | CAP, ELECT 100-10V                      |
|            | 87-010-401-080 | CAP, ELECT 1-50V<EXCEPT USC>           |             | C456    | 87-010-370-040 |           | CAP,E 330-6.3 SME                       |
|            | 87-A10-176-010 | CAP,CER 1000P-50 M D                   |             | C457    | 87-010-221-080 |           | CAP, ELECT 470-10V                      |
|            | 87-A10-577-010 | CAP,CER 0.022-50 Z YF<EXCEPT USC>      |             | C459    | 87-010-263-080 |           | CAP, ELECT 100-10V                      |
|            | 87-A10-577-010 | CAP,CER 0.022-50 Z YF<EXCEPT USC>      |             | C460    | 87-010-236-080 |           | CAP,E 1000-10 SME                       |
|            | 87-A12-366-080 | CAP,M 0.015-100 J CP                   |             | C461    | 87-010-403-080 |           | CAP, ELECT 3.3-50V                      |
|            | 87-A12-366-080 | CAP,M 0.015-100 J CP                   |             | C462    | 87-010-403-080 |           | CAP, ELECT 3.3-50V                      |
|            | 87-010-545-080 | CAP, ELECT 0.22-50V                    |             | C465    | 87-A10-210-010 |           | CAP,CER 0.047-50 M                      |
|            | 87-010-545-080 | CAP, ELECT 0.22-50V<USC,140LHSC>       |             | C466    | 87-A10-176-010 |           | CAP,CER 1000P-50 M D                    |
|            |                |                                        |             | C467    | 87-A10-182-010 |           | CAP,CER 0.01-50 Z F                     |

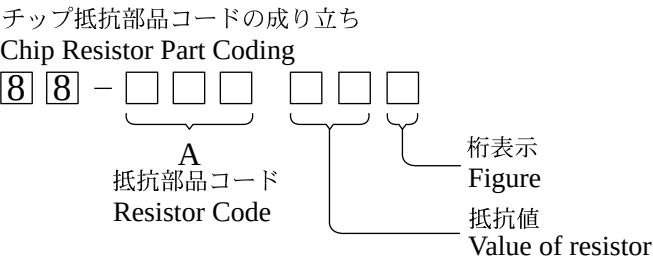
## ELECTRICAL MAIN PARTS LIST-2/3

| REF. NO | PART NO.       | KANRI NO. | DESCRIPTION                         | REF. NO             | PART NO.       | KANRI NO. | DESCRIPTION                     |
|---------|----------------|-----------|-------------------------------------|---------------------|----------------|-----------|---------------------------------|
| C481    | 87-A11-145-080 |           | CAP,TC U 0.01-50 Z F<USC>           | RECTIFIER C.B       |                |           |                                 |
| C484    | 87-A10-176-010 |           | CAP,CER 1000P-50 M D                | C851                | 87-A10-182-010 |           | CAP,CER 0.01-50 Z F             |
|         |                |           | <EXCEPT USC,EZSC,140LHSC>           | C852                | 87-A10-182-010 |           | CAP,CER 0.01-50 Z F             |
| C485    | 87-A11-145-080 |           | CAP,TC U 0.01-50 Z F                | C853                | 87-A10-182-010 |           | CAP,CER 0.01-50 Z F             |
|         |                |           | <EXCEPT 120LHSC,USC,140LHSC>        | C854                | 87-A10-182-010 |           | CAP,CER 0.01-50 Z F             |
| C486    | 87-010-263-080 |           | CAP, ELECT 100-10V<EXCEPT KSC,EZSC> | C855                | 87-010-388-080 |           | CAP,E1000-25 M SME              |
| C487    | 87-A11-148-080 |           | CAP,TC U 0.1-50 Z F                 |                     |                |           |                                 |
|         |                |           | <HRJSC,HRJPC,HRJLC,KSC,HSSC>        | CASSETTE C.B        |                |           |                                 |
| C488    | 87-A11-145-080 |           | CAP,TC U 0.01-50 Z F                | C216                | 87-010-248-080 |           | CAP, ELECT 220-10V              |
|         |                |           | <EXCEPT 120LHSC,140LHSC>            | C219                | 87-A10-176-010 |           | CAP,CER 1000P-50 M D            |
| C502    | 87-010-248-080 |           | CAP, ELECT 220-10V                  | C301                | 87-010-405-080 |           | CAP, ELECT 10-50V               |
| C503    | 87-A10-176-010 |           | CAP,CER 1000P-50 M D                | C302                | 87-010-405-080 |           | CAP, ELECT 10-50V               |
| C505    | 87-010-263-080 |           | CAP, ELECT 100-10V                  | C303                | 87-A10-179-010 |           | CAP,CER 3300P-50 M E            |
| C801    | 87-A11-891-080 |           | CAP,CER 470P-50 J SL                |                     |                |           |                                 |
| C802    | 87-A11-891-080 |           | CAP,CER 470P-50 J SL                | C304                | 87-A10-179-010 |           | CAP,CER 3300P-50 M E            |
| C805    | 87-010-545-080 |           | CAP, ELECT 0.22-50V                 | C305                | 87-010-382-080 |           | CAP,E 22-25 M 11L SME           |
| C806    | 87-010-545-080 |           | CAP, ELECT 0.22-50V                 | C306                | 87-010-382-080 |           | CAP,E 22-25 M 11L SME           |
| C807    | 87-A10-176-010 |           | CAP,CER 1000P-50 M D                | C307                | 87-A12-369-080 |           | CAP,M 0.027-100 J CP            |
| C808    | 87-A10-176-010 |           | CAP,CER 1000P-50 M D                | C308                | 87-A12-369-080 |           | CAP,M 0.027-100 J CP            |
| C809    | 87-010-405-080 |           | CAP, ELECT 10-50V                   |                     |                |           |                                 |
| C810    | 87-010-405-080 |           | CAP, ELECT 10-50V                   | C309                | 87-010-404-080 |           | CAP, ELECT 4.7-50V              |
| C811    | 87-010-263-080 |           | CAP, ELECT 100-10V                  | C310                | 87-010-404-080 |           | CAP, ELECT 4.7-50V              |
| C812    | 87-010-263-080 |           | CAP, ELECT 100-10V                  | C311                | 87-A12-356-080 |           | CAP,M 2200P-100 J CP            |
| C813    | 87-010-386-080 |           | CAP,E 330-25 M SME                  | C312                | 87-A12-356-080 |           | CAP,M 2200P-100 J CP            |
|         |                |           |                                     | C315                | 87-010-221-080 |           | CAP, ELECT 470-10V              |
| C814    | 87-010-386-080 |           | CAP,E 330-25 M SME                  |                     |                |           |                                 |
| C817    | 87-A12-380-080 |           | CAP,M 0.22-100 J CP                 | C316                | 87-010-405-080 |           | CAP, ELECT 10-50V               |
| C818    | 87-A12-380-080 |           | CAP,M 0.22-100 J CP                 | C317                | 87-A10-182-010 |           | CAP,CER 0.01-50 Z F             |
| C819    | 87-010-101-080 |           | CAP, ELECT 220-16                   | C318                | 87-A10-182-010 |           | CAP,CER 0.01-50 Z F             |
| C820    | 87-010-386-080 |           | CAP,E 330-25 M SME                  | C323                | 87-A10-182-010 |           | CAP,CER 0.01-50 Z F             |
|         |                |           |                                     | C351                | 87-A11-112-080 |           | CAP,TC U 1000P-50 J CH<140LHSC> |
| C821    | 87-010-401-080 |           | CAP, ELECT 1-50V                    |                     |                |           |                                 |
| C856    | 87-010-405-080 |           | CAP, ELECT 10-50V                   | C352                | 87-A10-182-010 |           | CAP,CER 0.01-50 Z F             |
| C857    | 87-010-237-080 |           | CAP,E 1000-16 M SME                 | C353                | 87-A10-182-010 |           | CAP,CER 0.01-50 Z F             |
| C858    | 87-010-388-080 |           | CAP,E 1000-25 M SME                 | CN301               | 8B-CDC-659-010 |           | CONN,4P V T-HEAD                |
| CF101   | 87-008-582-010 |           | FLTR,SFU455B                        | SW301               | 8B-CDC-635-010 |           | SW,SL 1-9-2 PS92D01             |
|         |                |           |                                     | T351                | 87-CD8-605-010 |           | COIL,OSC BIAS 4A363R            |
| CF102   | 87-008-261-010 |           | FILTER, SFE10.7MA5-A<EXCEPT USC>    |                     |                |           |                                 |
| CF102   | 87-008-582-010 |           | FLTR,SFU455B<USC>                   | VR351               | 8B-CDC-634-010 |           | SFR,10K                         |
| CF103   | 87-A90-420-010 |           | FLTR,CF CDA10.7MG1<USC>             |                     |                |           |                                 |
| CN310   | 8B-CDC-677-010 |           | F-CABLE ASSY,7P 2 93MM              | CD KEY&DISPLAY C.B  |                |           |                                 |
| CN401   | 8B-CDC-660-010 |           | CONN,16P V TOC-B                    | DP401               | 8B-CDC-624-010 |           | LED,A505RDD                     |
|         |                |           |                                     | LED401              | 87-070-106-010 |           | LED,SE3001DT R                  |
| CN402   | 8B-CDC-661-010 |           | CONN ASSY,6P CD-ME                  | SW401               | 8B-CDC-623-010 |           | SW,TACT 1102B160G               |
| CN403   | 8B-CDC-663-010 |           | F-CABLE ASSY,5P 2 153MM             | SW402               | 8B-CDC-623-010 |           | SW,TACT 1102B160G               |
| CN404   | 8B-CDC-664-010 |           | F-CABLE ASSY,8P 2 153MM             | SW403               | 8B-CDC-623-010 |           | SW,TACT 1102B160G               |
| CN801   | 8B-CDC-657-010 |           | CONN,4P V SPK-OUT                   |                     |                |           |                                 |
| CN851   | 8B-CDC-658-010 |           | CONN,3P V BATT                      | SW404               | 8B-CDC-623-010 |           | SW,TACT 1102B160G               |
|         |                |           |                                     | SW405               | 8B-CDC-623-010 |           | SW,TACT 1102B160G               |
| CNH401  | 8B-CDC-665-010 |           | FF-CABLE,16P 1 200MM                | SW406               | 8B-CDC-623-010 |           | SW,TACT 1102B160G               |
| HP801   | 8B-CDC-629-010 |           | JACK,HTJ035-08D                     |                     |                |           |                                 |
| L101    | 8B-CDC-640-010 |           | COIL,FMRF4T5MM                      | BATTERY C.B         |                |           |                                 |
| L102    | 8B-CDC-639-010 |           | COIL,FMOSC3T5MM                     |                     |                |           |                                 |
| L103    | 8B-CDC-640-010 |           | COIL,FMRF4T5MM                      |                     |                |           |                                 |
|         |                |           |                                     |                     |                |           |                                 |
| L104    | 8B-CDC-673-010 |           | COIL,AM IFT                         |                     |                |           |                                 |
| L105    | 87-005-849-080 |           | COIL,10UH<CECS><EXCEPT USC>         |                     |                |           |                                 |
| L402    | 87-005-684-080 |           | COIL,10UH J LF0.5S                  | SENSOR C.B<140LHSC> |                |           |                                 |
| L803    | 87-005-680-080 |           | COIL,4.7UH J LF5.0S<EXCEPT 140LHSC> | C201                | 87-010-378-080 |           | CAP,E 10-16M 11L SME<140LHSC>   |
| LF401   | 87-A90-133-010 |           | SW LEAF LSA1120JAU                  | CN201               | 8B-CDN-601-010 |           | CONN,3P REMOTE<140LHSC>         |
|         |                |           |                                     |                     |                |           |                                 |
| R475    | 87-029-366-090 |           | FUSING RESISTOR, 1/2W-4.7 F         | MOTOR C.B           |                |           |                                 |
| SW101   | 8B-CDC-644-010 |           | SW,SL 2-2-2 SK22F03G9AA             | M2                  | S0-M10-A09-700 |           | MOTOR SLED ASSY                 |
| SW102   | 8B-CDC-644-010 |           | SW,SL 2-2-2 SK22F03G9AA             | PIN3                | S2-369-750-000 |           | PLUG,6P                         |
| SW801   | 8B-CDC-643-010 |           | SW,SL 2-4-3 SK43D01G9AA             | SW1                 | S4-S13-A01-600 |           | SW,LEAF                         |
| T101    | 8B-CDC-672-010 |           | COIL,AM OSC                         |                     |                |           |                                 |
|         |                |           |                                     |                     |                |           |                                 |
| T102    | 8B-CDC-674-010 |           | COIL,FM IFT1<EXCEPT USC>            |                     |                |           |                                 |
| T103    | 8B-CDC-673-010 |           | COIL,AM IFT<EXCEPT USC>             |                     |                |           |                                 |
| T103    | 8B-CDC-688-010 |           | IFT, 4A-224R<USC>                   |                     |                |           |                                 |
| T105    | 8B-CDC-675-010 |           | COIL,FM DET<EXCEPT USC>             |                     |                |           |                                 |
| VC101   | 8B-CDC-671-010 |           | TUN-CAP,20P-126P DF443DF02-A04      |                     |                |           |                                 |
|         |                |           |                                     |                     |                |           |                                 |
| VR101   | 8B-CDC-634-010 |           | SFR,10K<EXCEPT USC>                 |                     |                |           |                                 |
| VR501   | 8B-CDC-633-010 |           | SFR,500 H                           |                     |                |           |                                 |
| VR801   | 8A-RU2-661-010 |           | VR,50KC                             |                     |                |           |                                 |
| WH401   | 8B-CDC-662-010 |           | F-CABLE ASSY,2P 2 253MM             |                     |                |           |                                 |
| X401    | 8Z-CD5-633-010 |           | VIB, CER16.93MHZ FCR16.93M2         |                     |                |           |                                 |

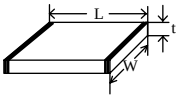
ELECTRICAL MAIN PARTS LIST-3/3

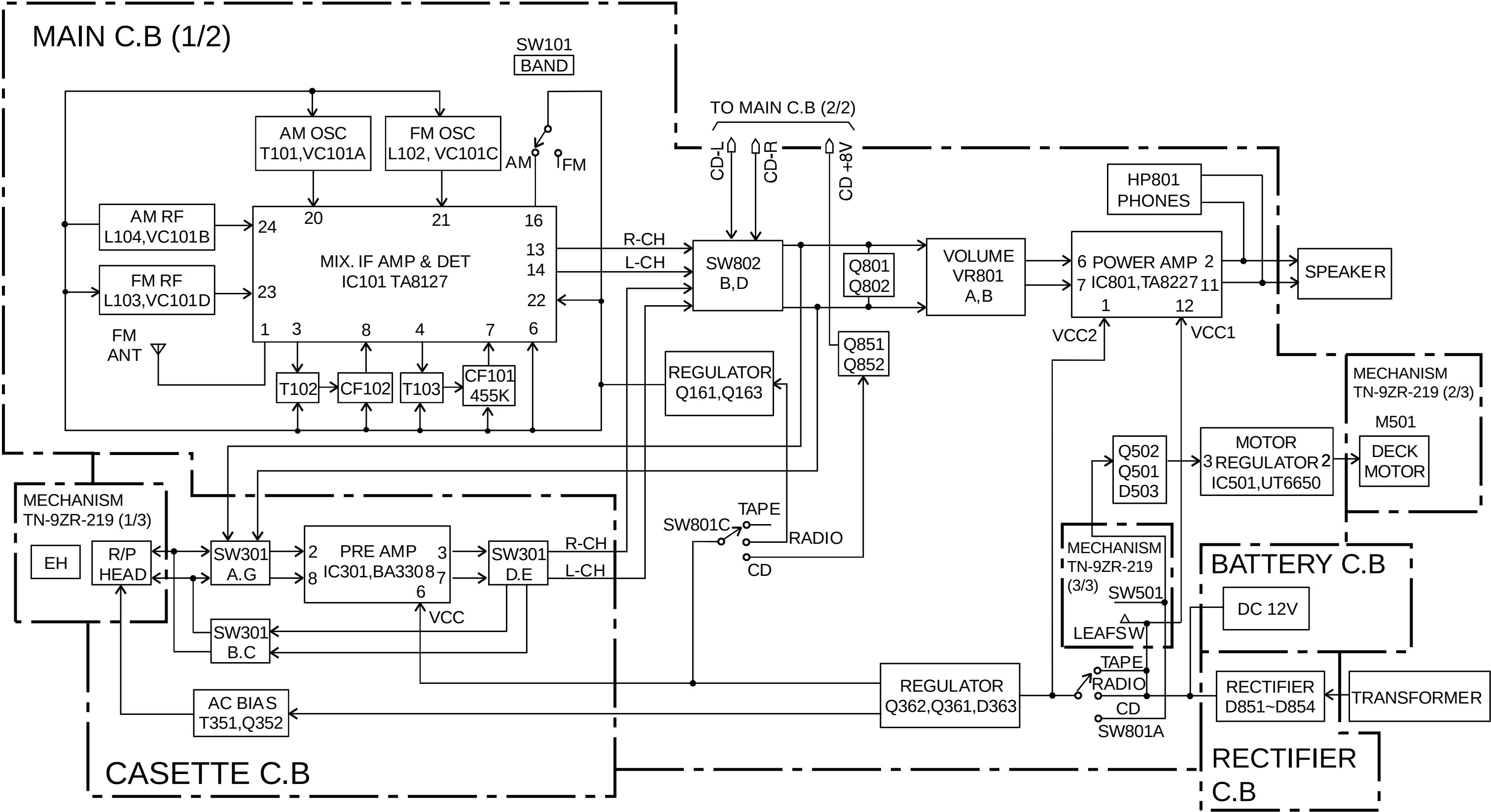
- Regarding connectors, they are not stocked as they are not the initial order items.  
The connectors are available after they are supplied from connector manufacturers upon the order is received.

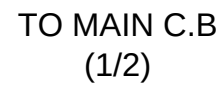
○チップ抵抗部品コード／CHIP RESISTOR PART CODE

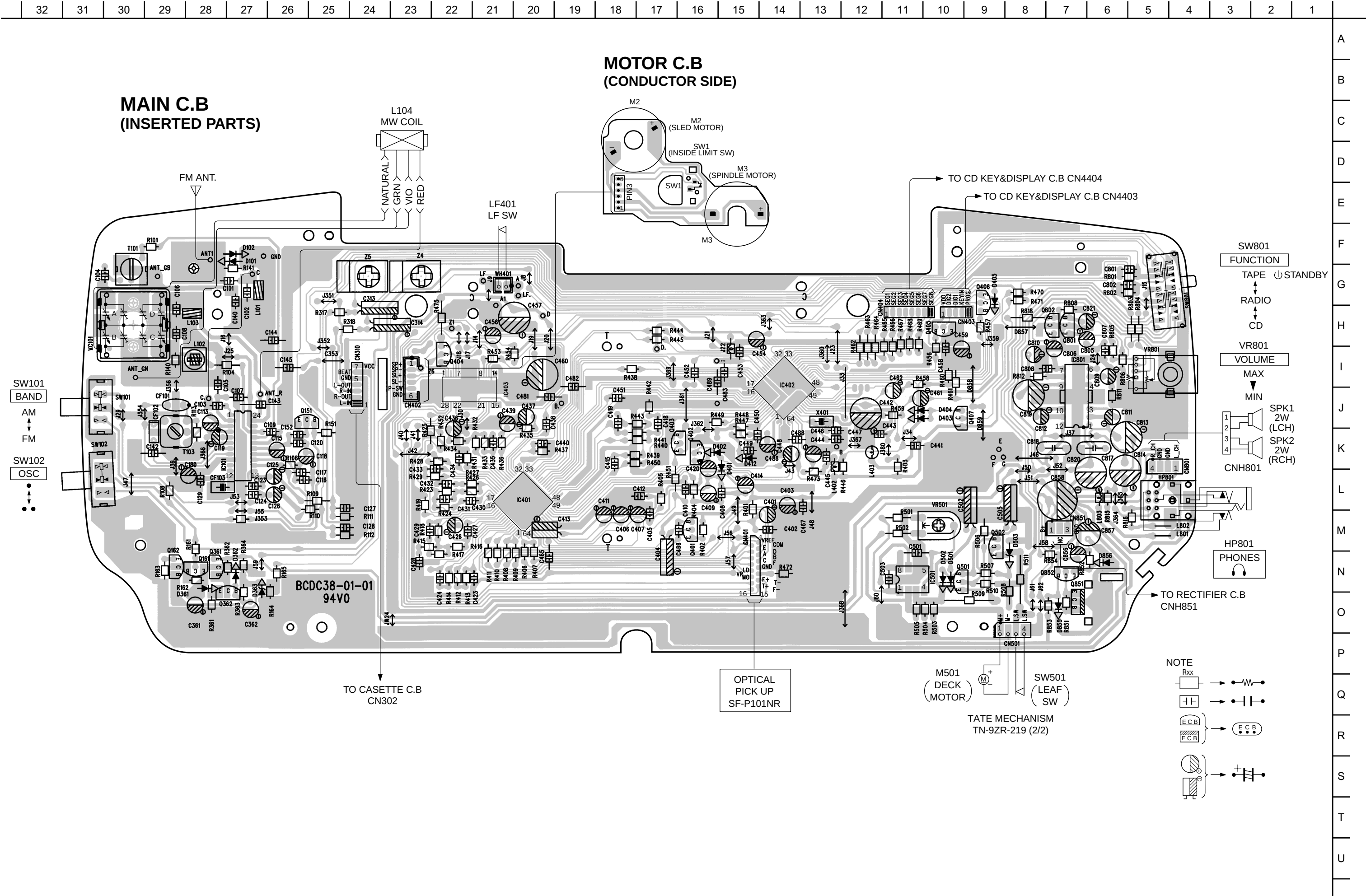


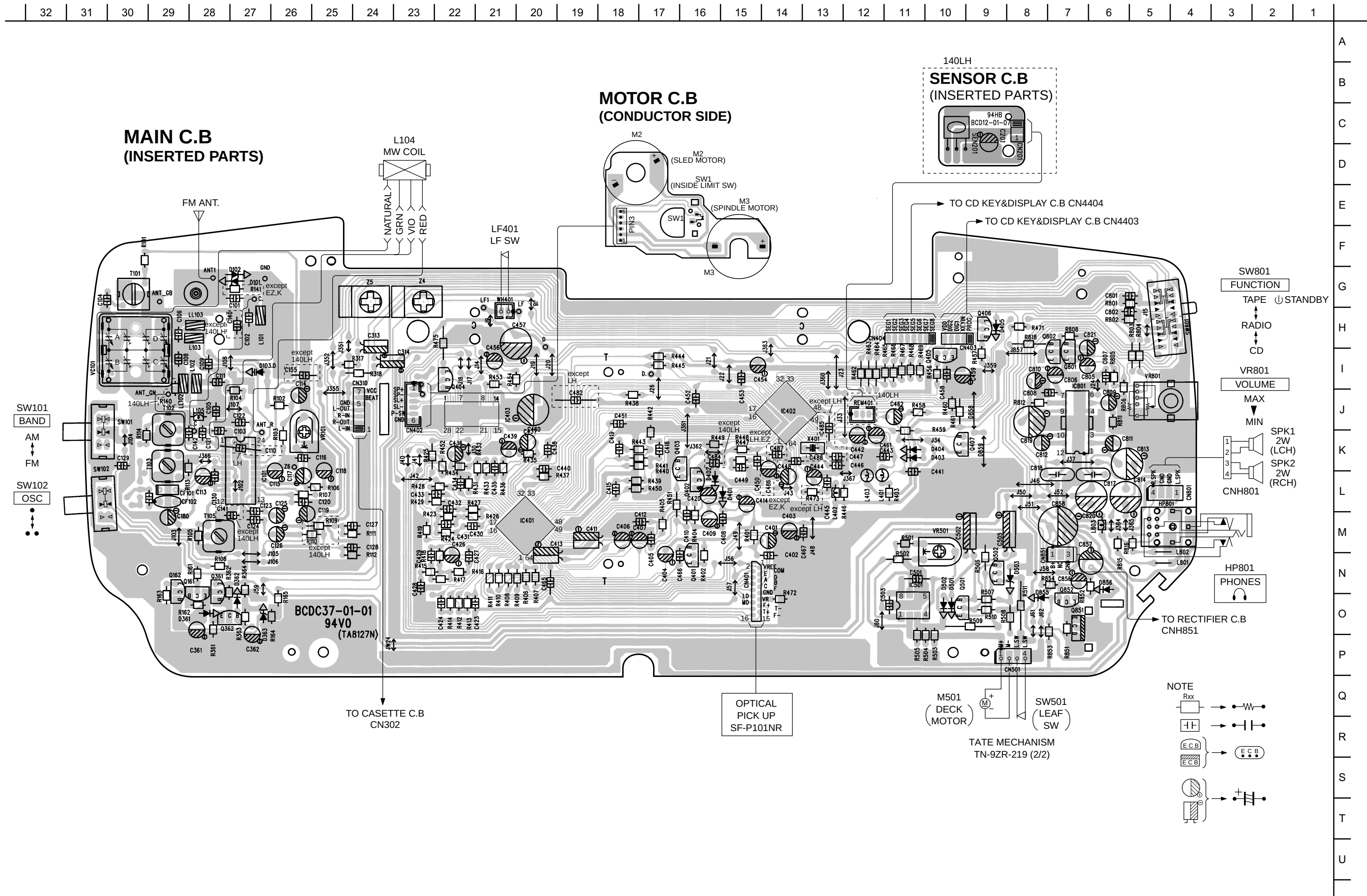
チップ抵抗  
Chip resistor

| 容量<br>Wattage | 種類<br>Type | 許容誤差<br>Tolerance | 記号<br>Symbol | 寸法／Dimensions (mm)                                                                |     |      |      | 抵抗コード : A         |
|---------------|------------|-------------------|--------------|-----------------------------------------------------------------------------------|-----|------|------|-------------------|
|               |            |                   |              | 外形／Form                                                                           | L   | W    | t    | Resistor Code : A |
| 1/16W         | 1005       | ± 5%              | CJ           |  | 1.0 | 0.5  | 0.35 | 104               |
| 1/16W         | 1608       | ± 5%              | CJ           |                                                                                   | 1.6 | 0.8  | 0.45 | 108               |
| 1/10W         | 2125       | ± 5%              | CJ           |                                                                                   | 2   | 1.25 | 0.45 | 118               |
| 1/8W          | 3216       | ± 5%              | CJ           |                                                                                   | 3.2 | 1.6  | 0.55 | 128               |

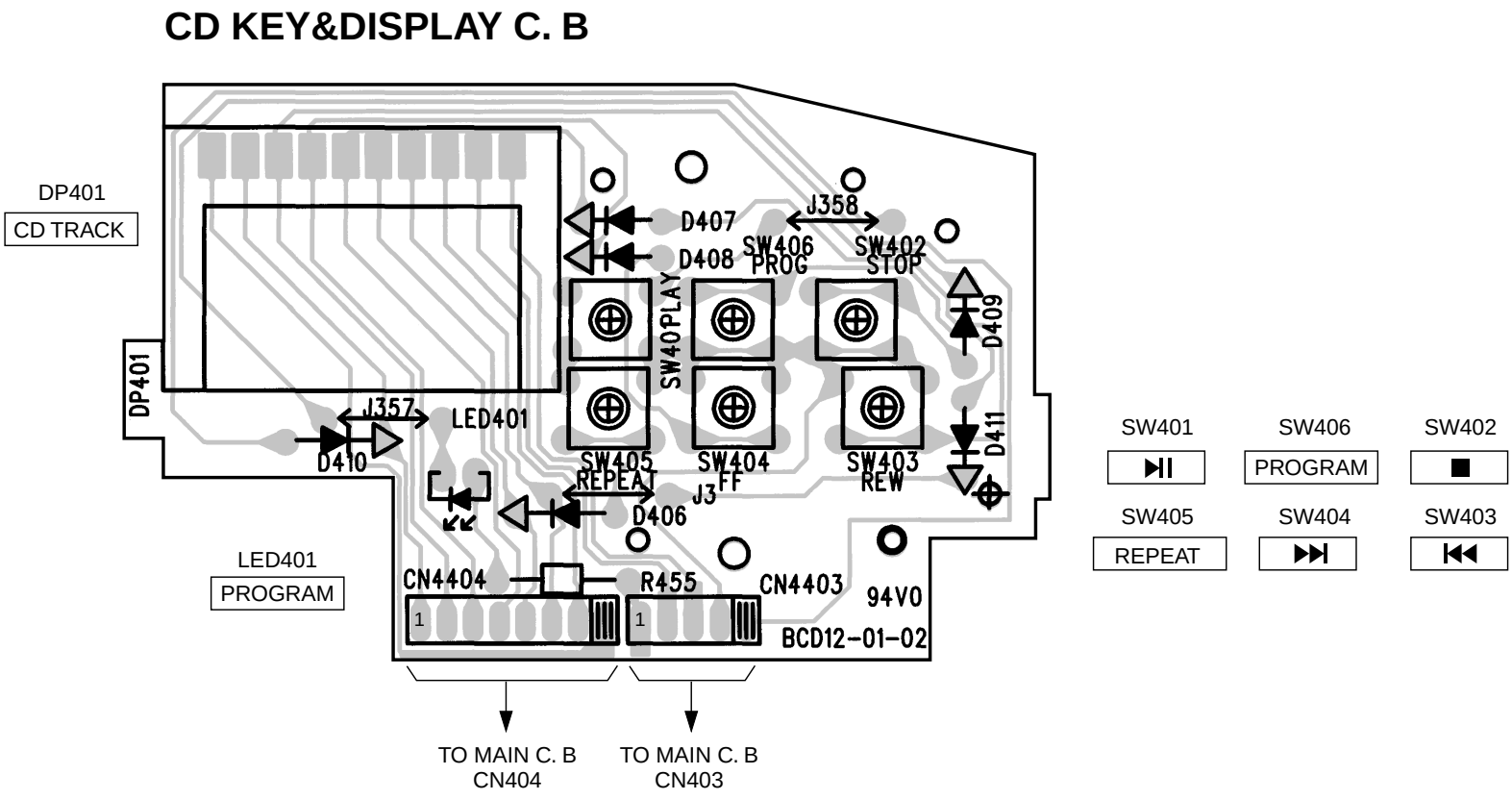
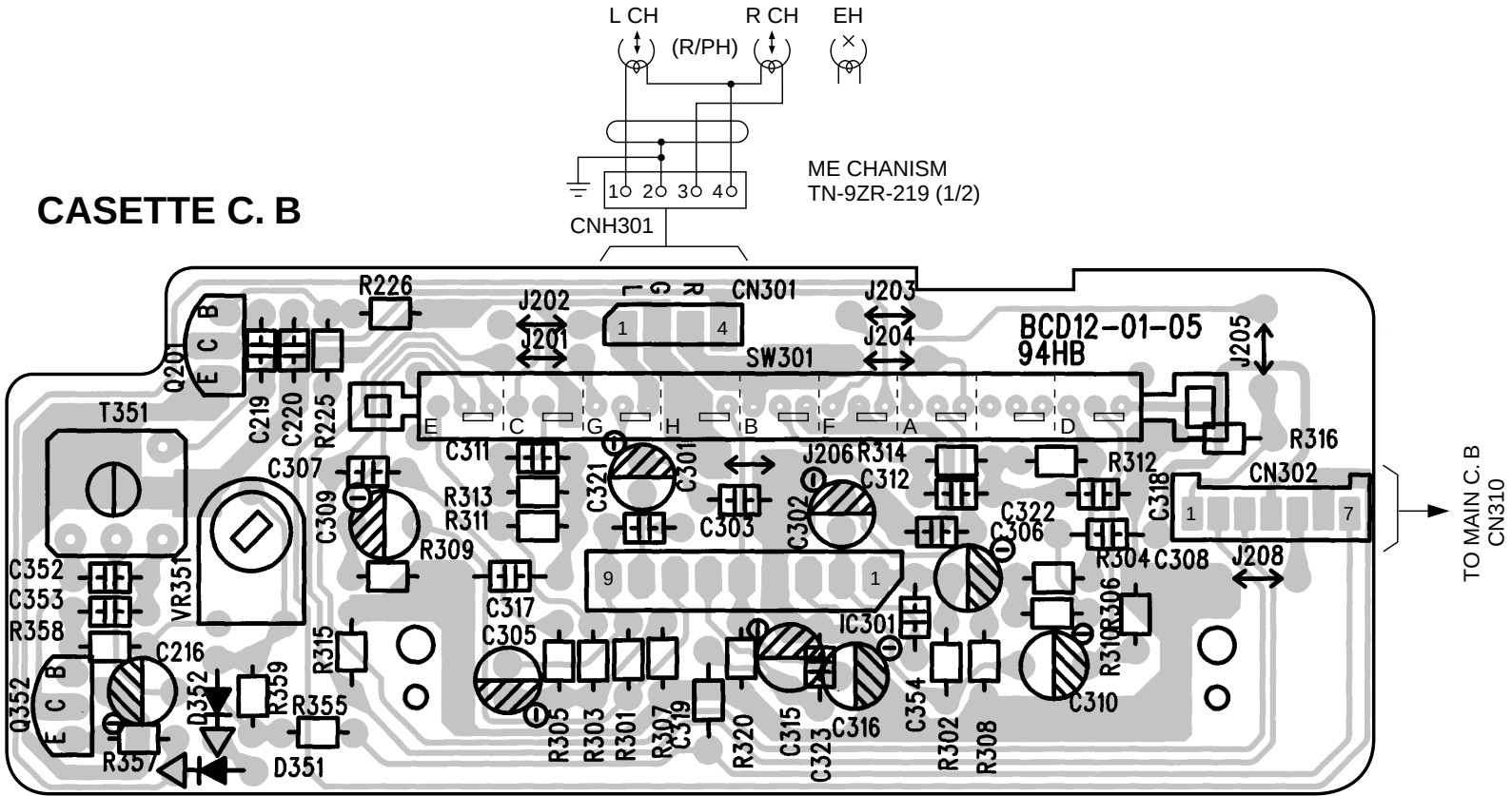








|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |   |  |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|---|---|---|---|---|---|---|---|--|
| 32 | 31 | 30 | 29 | 28 | 27 | 26 | 25 | 24 | 23 | 22 | 21 | 20 | 19 | 18 | 17 | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|---|---|---|---|---|---|---|---|--|



NOTE

Rxx → ●—W—●

—|—|— → ●—|—|—●

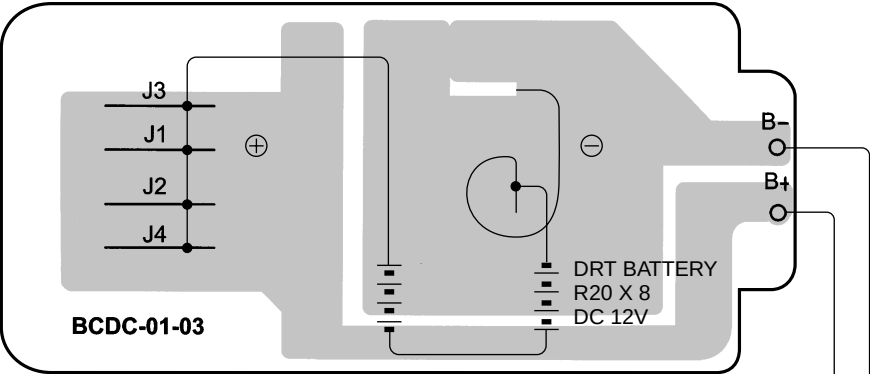
ECB → ECB

—|—|— → ●—|—|—●

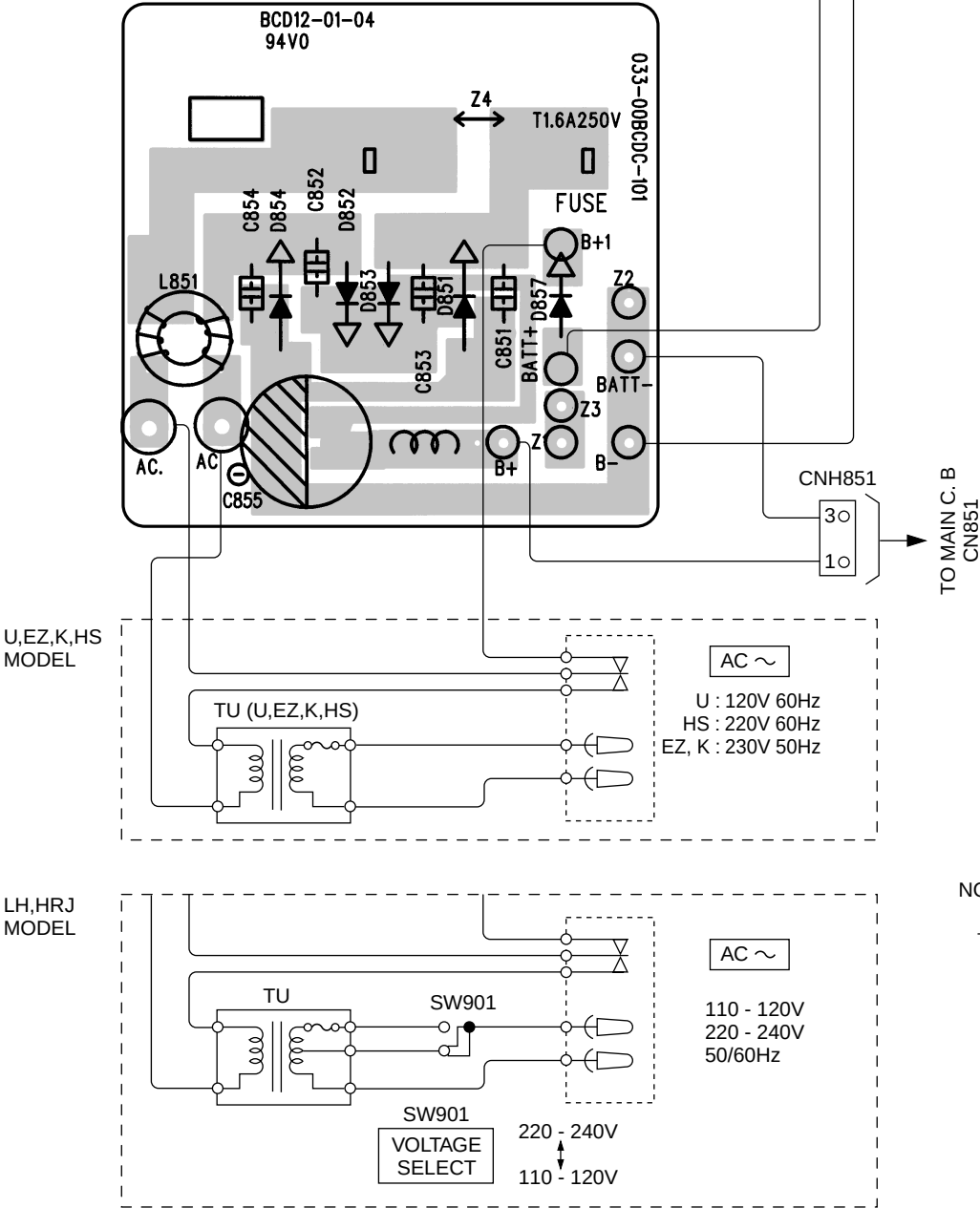
WIRING-4/4 (RECTIFIER, BATTERY)

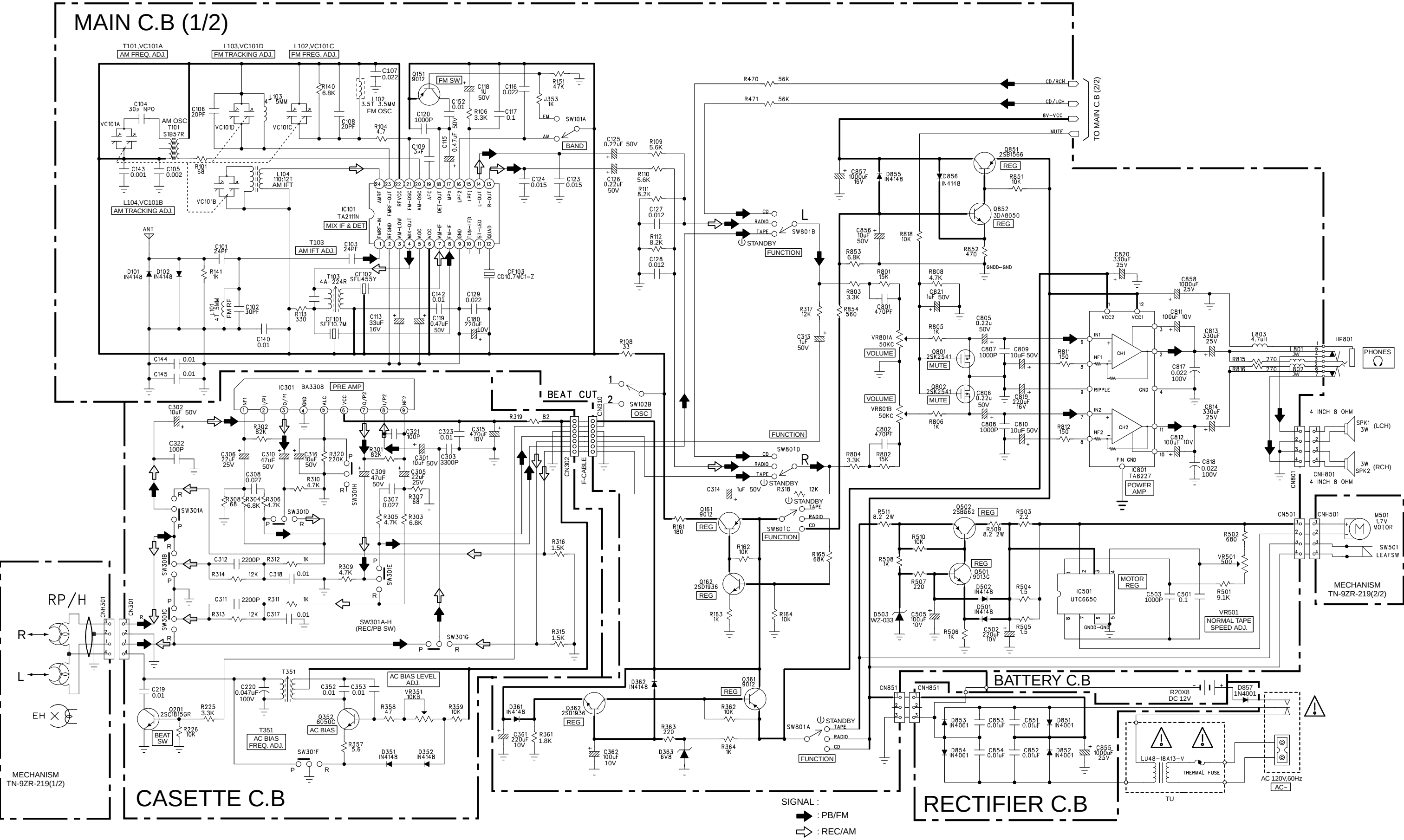
|    |    |    |    |    |    |   |   |   |   |   |   |   |   |   |
|----|----|----|----|----|----|---|---|---|---|---|---|---|---|---|
| 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
|----|----|----|----|----|----|---|---|---|---|---|---|---|---|---|

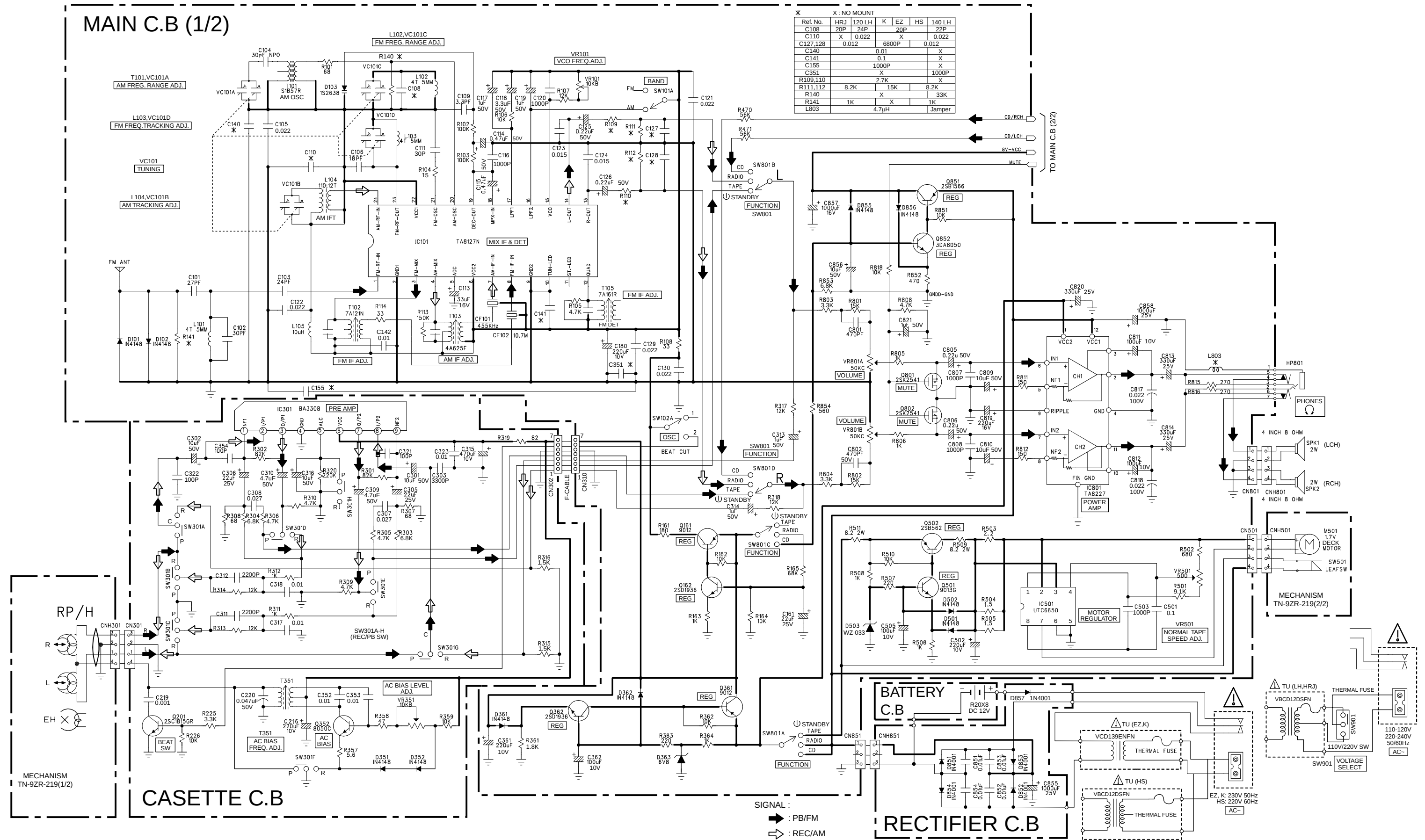
BATTERY C. B  
(INSERTED PARTS)

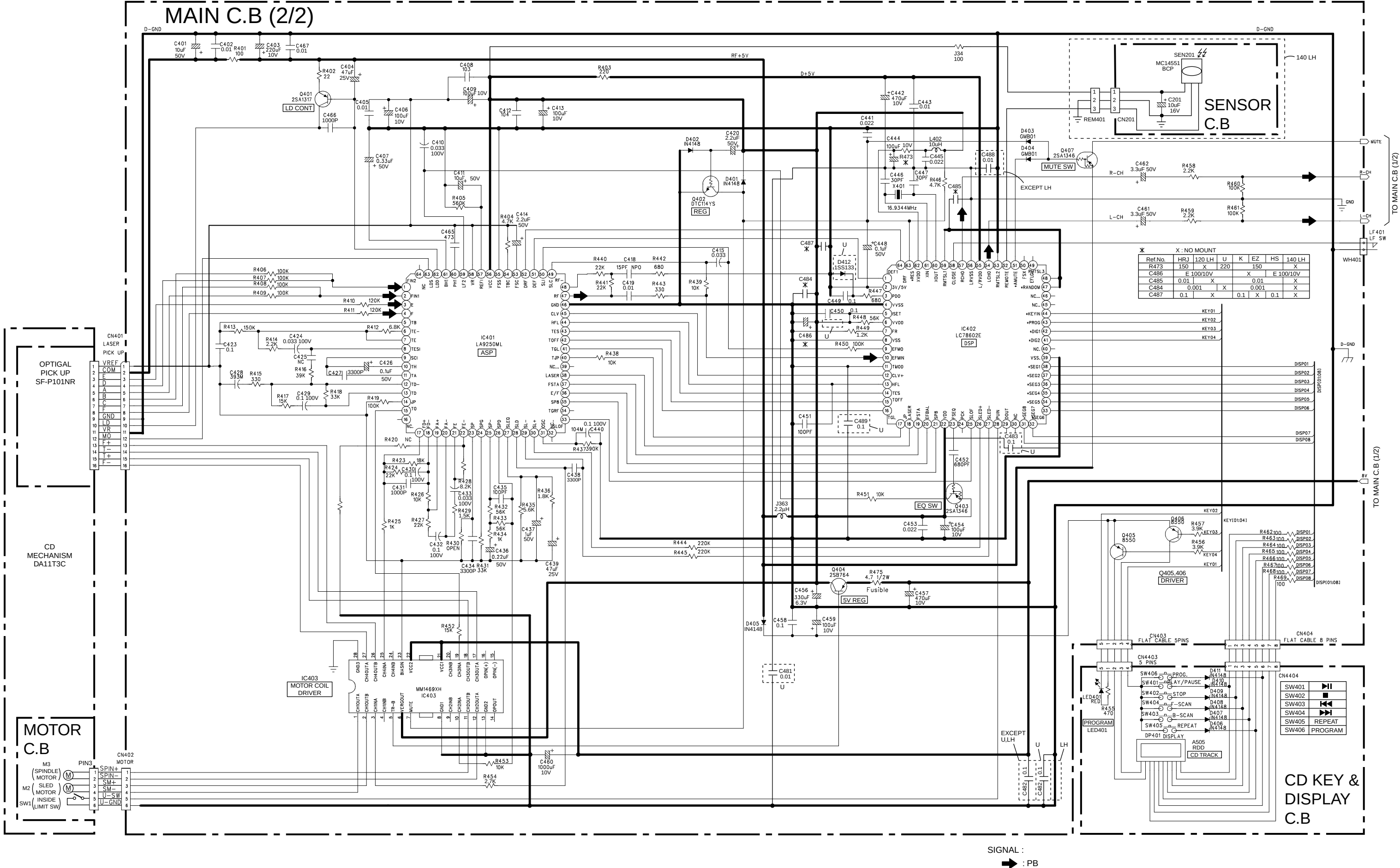


RECTIFIER C. B  
(INSERTED PARTS)





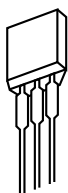




## TRANSISTOR ILLUSTRATION-1/1



ECB  
2SC1815



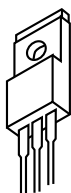
ECB  
DTC114YS  
2SD1936



ECB  
2SB562  
2SB764



SDG  
2SK2541



BCE  
2SB1566

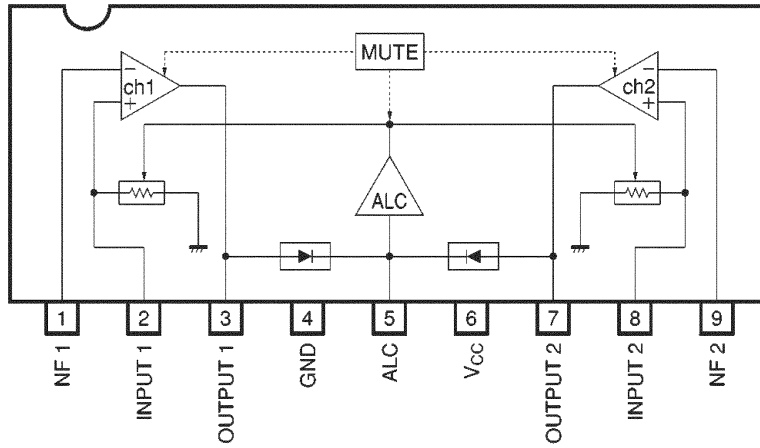


ECB  
3CA8550  
3CG9012  
3DA8050  
3DG9013

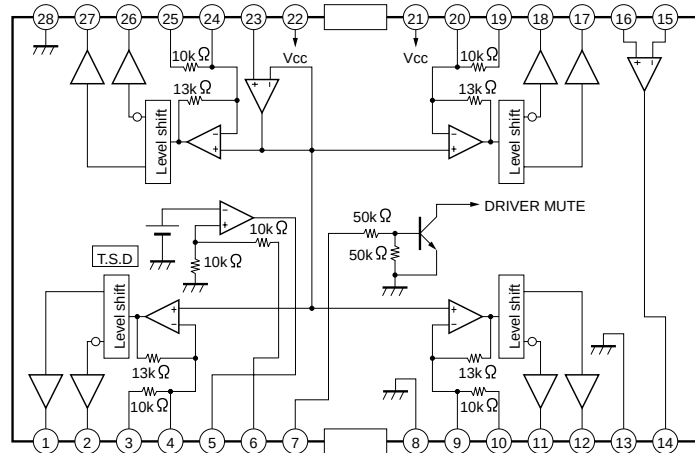


ECB  
2SA1317  
2SA1346

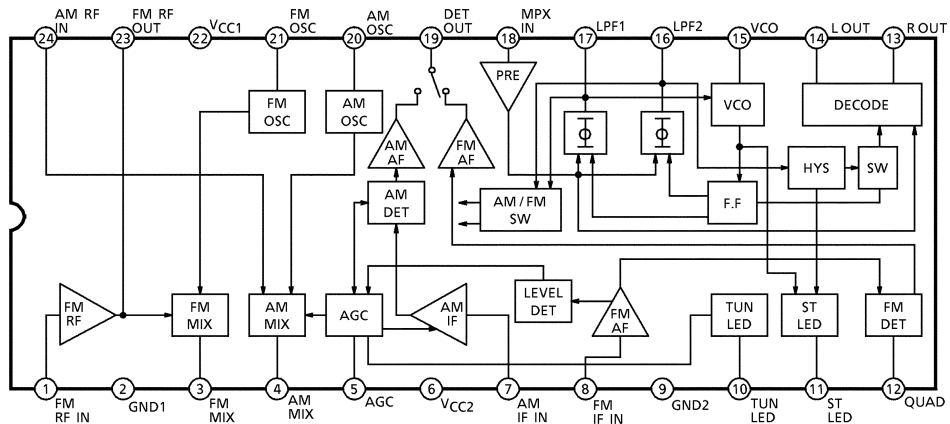
IC BLOCK DIAGRAM-1/1  
IC, BA3308



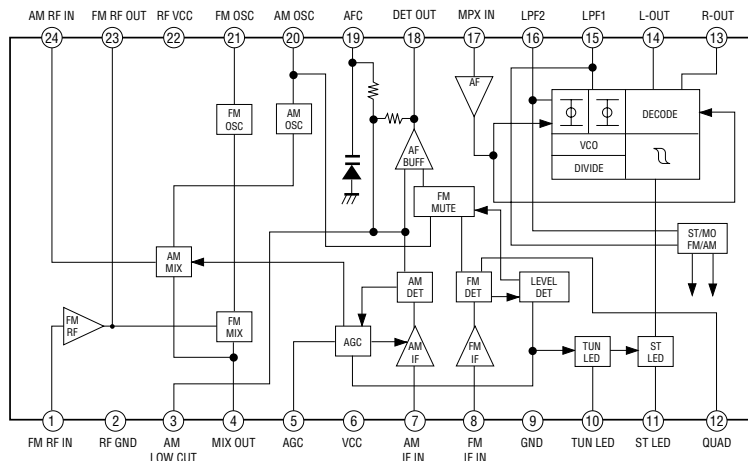
IC, MM1469XH



IC, TA8127N



IC, TA2111N



## VOLTAGE CHART-1/2

**THE MEASURED VALUE IS DC VOLTAGE**

**UNIT: V**

**TUNER SECTION**

**TEST CONDITION: SET AM/FM TUNER ON ONE FREQUENCY**

**IC101 (TA8127N)**

| PIN'S NUMBER | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 11   | 12   |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| AM           | 0.74 | 0    | 3.19 | 3.19 | 0    | 3.19 | 3.19 | 3.19 | 0    | 0    | 2.77 | 3.20 |
| FM           | 0    | 0    | 4.39 | 4.43 | 0.84 | 4.38 | 4.11 | 4.38 | 0    | 0    | 4.20 | 4.34 |
| PIN'S NUMBER | 13   | 14   | 15   | 16   | 17   | 18   | 19   | 20   | 21   | 22   | 23   | 24   |
| AM           | 1.03 | 1.01 | 2.82 | 2.48 | 2.48 | 0.64 | 0.99 | 3.19 | 3.14 | 3.19 | 3.19 | 3.19 |
| FM           | 1.05 | 1.03 | 3.77 | 4.22 | 3.87 | 0.70 | 1.37 | 4.34 | 4.41 | 4.41 | 4.41 | 4.41 |

| TRANSISTOR | Q161(9012) |      |      | Q162(2SD1936) |      |      |
|------------|------------|------|------|---------------|------|------|
|            | E          | B    | C    | E             | B    | C    |
| FM         | 7.03       | 6.34 | 6.95 | 0.33          | 0.88 | 6.34 |

**CASSETTE & POWER SECTION**

**TEST CONDITION: TAPE PLAY**

**IC801 (TA8227P)**

| PIN'S NUMBER | 1     | 2    | 3     | 4 | 5    | 6 | 7 | 8    | 9    | 10    | 11   | 12    |
|--------------|-------|------|-------|---|------|---|---|------|------|-------|------|-------|
| PLAY         | 12.50 | 6.36 | 12.10 | 0 | 0.58 | 0 | 0 | 0.58 | 6.62 | 12.10 | 6.37 | 12.50 |

**IC501 (UTC6650)**

| PIN'S NUMBER | 1    | 2    | 3    | 4    | 5 | 6 | 7    | 8    |
|--------------|------|------|------|------|---|---|------|------|
|              | 2.03 | 3.31 | 3.37 | 3.17 | 0 | 0 | 1.45 | 0.69 |

**IC301 (BA3308)**

| PIN'S NUMBER | 1    | 2 | 3    | 4 | 5 | 6    | 7    | 8 | 9    |
|--------------|------|---|------|---|---|------|------|---|------|
|              | 1.84 | 0 | 1.85 | 0 | 0 | 6.71 | 1.88 | 0 | 1.85 |

| TRANSISTOR | Q352(8050C) |      |      | Q362(2SD1936) |      |       | Q361(9012) |       |      |
|------------|-------------|------|------|---------------|------|-------|------------|-------|------|
|            | E           | B    | C    | E             | B    | C     | E          | B     | C    |
| TAPE PLAY  | 6.63        | 7.02 | 7.03 | 6.38          | 6.91 | 11.20 | 11.90      | 11.20 | 7.03 |
| TAPE REC   | 0.06        | 7.00 | 0.65 | 6.36          | 6.91 | 10.80 | 11.50      | 10.90 | 7.00 |

| TRANSISTOR | Q501(9013G) |       |      | Q502(2SB562) |       |      |
|------------|-------------|-------|------|--------------|-------|------|
|            | E           | B     | C    | E            | B     | C    |
|            | 11.20       | 10.70 | 4.08 | 2.86         | 10.60 | 3.43 |

**CD SECTION**

**TEST CONDITION: CD PLAY**

**IC402 (LC78602E)**

| PIN'S NUMBER | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 11   | 12   |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| CD PLAY      | 0.02 | 0    | 1.60 | 0    | 1.59 | 4.93 | 0.36 | 0    | 2.46 | 2.40 | 0    | 2.60 |
| PIN'S NUMBER | 13   | 14   | 15   | 16   | 17   | 18   | 19   | 20   | 21   | 22   | 23   | 24   |
| CD PLAY      | 0    | 1.56 | 0    | 4.93 | 2.50 | 4.90 | 0.43 | 0.43 | 0.03 | 4.93 | 4.93 | 0.03 |
| PIN'S NUMBER | 25   | 26   | 27   | 28   | 29   | 30   | 31   | 32   | 33   | 34   | 35   | 36   |
| CD PLAY      | 0.03 | 0.05 | 0.06 | 4.90 | 2.50 | 1.78 | 2.93 | 2.93 | 4.88 | 2.93 | 2.93 | 0.95 |
| PIN'S NUMBER | 37   | 38   | 39   | 40   | 41   | 42   | 43   | 44   | 45   | 46   | 47   | 48   |
| CD PLAY      | 3.00 | 0    | 0    | 2.80 | 2.75 | 4.91 | 4.91 | 0    | 0    | 0    | 0    | 0    |
| PIN'S NUMBER | 49   | 50   | 51   | 52   | 53   | 54   | 55   | 56   | 57   | 58   | 59   | 60   |
| CD PLAY      | 0    | 0    | 4.93 | 2.00 | 0    | 1.74 | 4.20 | 0    | 1.76 | 0    | 0    | 1.80 |
| PIN'S NUMBER | 61   | 62   | 63   | 64   |      |      |      |      |      |      |      |      |
| CD PLAY      | 2.00 | 4.92 | 4.92 | 4.85 |      |      |      |      |      |      |      |      |

# VOLTAGE CHART-2/2

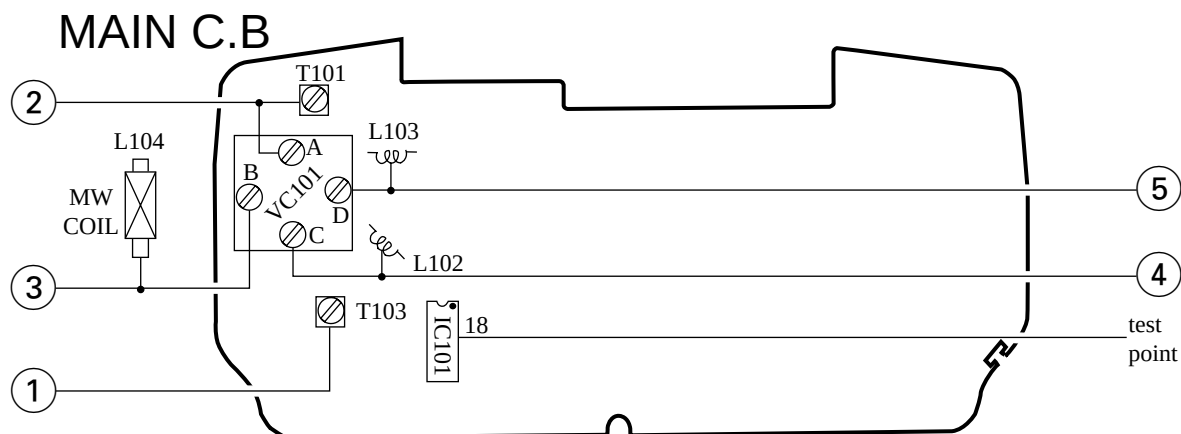
## IC401 (LA9250ML)

| PIN'S NUMBER | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 11   | 12   |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| CD PLAY      | 2.43 | 2.43 | 2.48 | 2.48 | 2.48 | 2.43 | 2.46 | 2.45 | 2.46 | 2.46 | 2.45 | 2.45 |
| PIN'S NUMBER | 13   | 14   | 15   | 16   | 17   | 18   | 19   | 20   | 21   | 22   | 23   | 24   |
| CD PLAY      | 2.45 | 2.40 | 2.46 | 0    | 2.55 | 2.40 | 2.33 | 2.47 | 2.49 | 2.47 | 2.40 | 2.40 |
| PIN'S NUMBER | 25   | 26   | 27   | 28   | 29   | 30   | 31   | 32   | 33   | 34   | 35   | 36   |
| CD PLAY      | 2.47 | 2.80 | 2.47 | 2.53 | 2.20 | 2.20 | 1.58 | 0.09 | 0    | 0.25 | 0.04 | 0.43 |
| PIN'S NUMBER | 37   | 38   | 39   | 40   | 41   | 42   | 43   | 44   | 45   | 46   | 47   | 48   |
| CD PLAY      | 0.43 | 4.93 | 0.30 | 2.40 | 4.93 | 0.15 | 1.50 | 0    | 2.65 | 0    | 2.18 | 2.45 |
| PIN'S NUMBER | 49   | 50   | 51   | 52   | 53   | 54   | 55   | 56   | 57   | 58   | 59   | 60   |
| CD PLAY      | 2.40 | 2.49 | 0    | 4.85 | 2.45 | 2.45 | 0    | 4.93 | 2.40 | 2.45 | 2.25 | 2.25 |
| PIN'S NUMBER | 61   | 62   | 63   | 64   |      |      |      |      |      |      |      |      |
| CD PLAY      | 2.20 | 3.47 | 0.18 | 0.80 |      |      |      |      |      |      |      |      |

## IC403 (MM1469XH)

| PIN'S NUMBER | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 11   | 12   |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| CD PLAY      | 2.89 | 2.95 | 2.53 | 2.48 | 5.33 | 5.08 | 4.73 | 0    | 2.48 | 2.78 | 3.36 | 2.56 |
| PIN'S NUMBER | 13   | 14   | 15   | 16   | 17   | 18   | 19   | 20   | 21   | 22   | 23   | 24   |
| CD PLAY      | 0    | 6.06 | 0.81 | 0.83 | 2.93 | 3.00 | 2.48 | 2.46 | 6.56 | 6.56 | 2.47 | 2.47 |
| PIN'S NUMBER | 25   | 26   | 27   | 28   |      |      |      |      |      |      |      |      |
| CD PLAY      | 2.49 | 2.96 | 2.93 | 0    |      |      |      |      |      |      |      |      |

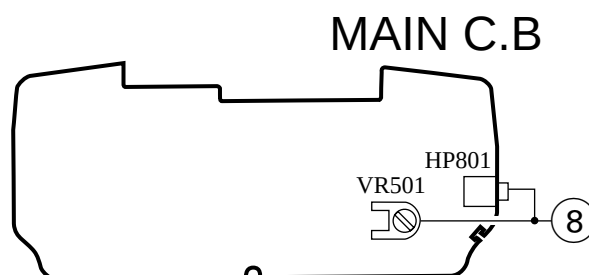
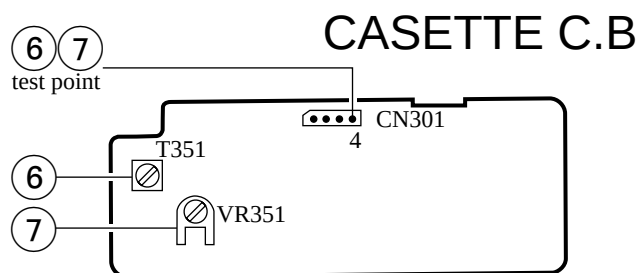
| TRANSISTOR | Q404(2SB764) |      |      | Q405(A8550) |      |      | Q406(8550) |      |      |
|------------|--------------|------|------|-------------|------|------|------------|------|------|
|            | E            | C    | B    | E           | C    | B    | E          | C    | B    |
|            | 7.60         | 4.93 | 6.97 | 4.20        | 2.00 | 4.30 | 4.20       | 2.00 | 4.30 |
| TRANSISTOR | Q403(A1346)  |      |      | Q407(A1346) |      |      |            |      |      |
|            | E            | C    | B    | E           | C    | B    |            |      |      |
|            | 4.90         | 2.20 | 4.90 | 4.90        | 4.90 | 0    |            |      |      |

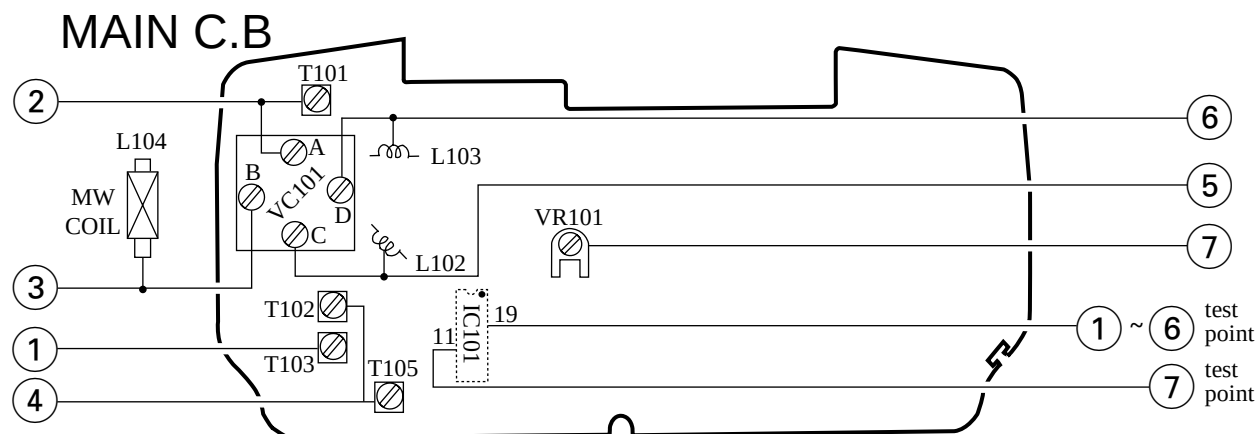
**U MODEL****< TUNER SECTION >**

1. AM IF Adjustment  
Test point: IC101 (TA2111N) 18PIN  
Adjustment location: T103  
T103 ..... 455kHz
2. AM Frequency Range Adjustment  
Test point: IC101 (TA2111N) 18PIN  
Adjustment location: T101, VC101A  
T101 ..... 517kHz  
VC101A ..... 1750kHz
3. AM Tracking Adjustment  
Test point: IC101 (TA2111N) 18PIN  
Adjustment location: L104, VC101B  
L104 ..... 600kHz waveform max.  
VC101B ..... 1400kHz waveform max.
4. FM Frequency Range Adjustment  
Test point: IC101 (TA2111N) 18PIN  
Adjustment location: L102, VC101C  
L102 ..... 87MHz  
VC101C ..... 109MHz
5. FM Tracking Adjustment  
Test point: IC101 (TA2111N) 18PIN  
Adjustment location: L103, VC101D  
L103 ..... 88MHz waveform max.  
VC101D ..... 108MHz waveform max.

**< DECK SECTION >**

6. AC BIAS Frequency Adjustment  
Test point: CN301 4PIN  
Adjustment location: T351  
T351 .....  $60 \pm 0.5$  MHz
7. AC BIAS Level Adjustment  
Test point: CN301 4PIN  
Adjustment location: VR351  
VR351 .....  $14 \pm 0.5$  V
8. Normal Tape Speed Adjustment  
Test point: HP801 (Headphone Jack)  
Test Tape: B-111LNA  
Adjustment location: VR501  
VR501 ..... 3000Hz

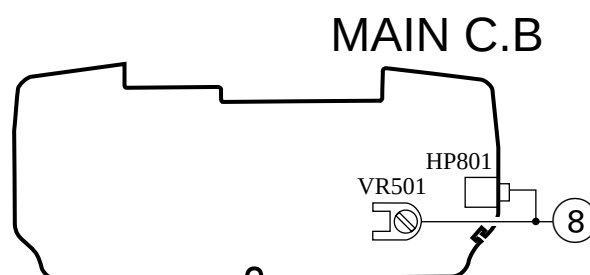
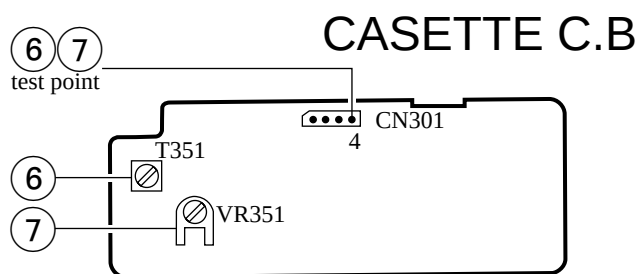


**EXCEPT U MODEL****< TUNER SECTION >**

1. AM IF Adjustment  
Test point: IC101 (TA8127N) 19PIN  
Adjustment location: T103  
(LH, HR, HS MODEL)  
T103 ..... 455kHz  
(EZ, K MODEL)  
T103 ..... 465kHz
2. AM Frequency Range Adjustment  
Test point: IC101 (TA8127N) 19PIN  
Adjustment location: T101, VC101A  
(LH MODEL)  
T101 ..... 517kHz  
VC101A ..... 1750kHz  
(HR, HS, K, EZ MODEL)  
T101 ..... 513kHz  
VC101A ..... 1635kHz
3. AM Tracking Adjustment  
Test point: IC101 (TA8127N) 19PIN  
Adjustment location: L104, VC101B  
L104 ..... 600kHz waveform max.  
VC101B ..... 1400kHz waveform max.
4. FM IF Adjustment  
Test point: IC101 (TA8127N) 19PIN  
Adjustment location: T102, T105  
T102, T105 ..... 10.7MHz
5. FM Frequency Range Adjustment  
Test point: IC101 (TA8127N) 19PIN  
Adjustment location: L102, VC101C  
(LH, HR, HS MODEL)  
L102 ..... 87MHz  
VC101C ..... 109MHz  
(K, EZ MODEL)  
L102 ..... 87.3MHz  
VC101C ..... 108.3MHz
6. FM Tracking Adjustment  
Test point: IC101 (TA8127N) 19PIN  
Adjustment location: L103, VC101D  
L103 ..... 88MHz waveform max.  
VC101D ..... 108MHz waveform max.
7. VCO Frequency Adjustment  
Test point: IC101 (TA8127N) 11PIN  
Adjustment location: VR101  
VR101 .....  $76 \pm 0.05$  MHz

**< DECK SECTION >**

6. AC BIAS Frequency Adjustment  
Test point: CN301 4PIN  
Adjustment location: T351  
T351 .....  $60 \pm 0.5$  MHz
7. AC BIAS Level Adjustment  
Test point: CN301 4PIN  
Adjustment location: VR351  
VR351 .....  $14 \pm 0.5$  V
8. Normal Tape Speed Adjustment  
Test point: HP801 (Headphone Jack)  
Test Tape: B-111LNA  
Adjustment location: VR501  
VR501 ..... 3000Hz



## IC DESCRIPTION-1/2 (LA9250M)-1/2

| Pin No. | Pin Name | I/O | Description                                                                                              |
|---------|----------|-----|----------------------------------------------------------------------------------------------------------|
| 1, 2    | FIN2, 1  | I   | Pickup photodiode (focus, RF) connection.                                                                |
| 3       | E        | I   | Pickup photodiode (tracking) connection.                                                                 |
| 4       | F        |     |                                                                                                          |
| 5       | TB       | I   | TE signal DC component input. Pickup photodiode (tracking) connection.                                   |
| 6       | TE-      | —   | TE signal gain setting resistor connection. A resistor is connected between this pin and TE.             |
| 7       | TE       | O   | TE signal output.                                                                                        |
| 8       | TESI     | I   | TES comparator input. Takes the bandpass filtered TE signal as its input.                                |
| 9       | SCI      | I   | Shock detection input.                                                                                   |
| 10      | TH       | —   | Tracking gain time constant setting.                                                                     |
| 11      | TA       | O   | TA amplifier output.                                                                                     |
| 12      | TD-      | —   | In conjunction with the TD and VR pins, used to form the tracking phase compensation circuit constant.   |
| 13      | TD       | —   | Tracking phase compensation setting.                                                                     |
| 14      | JP       | —   | Track jump signal amplitude setting.                                                                     |
| 15      | TO       | O   | Tracking control signal output.                                                                          |
| 16      | (NC)     | —   | No connection.                                                                                           |
| 17      | FD       | O   | Focusing control signal output.                                                                          |
| 18      | FD-      | I   | In conjunction with the FD and FA pins, used to form the focusing phase compensation circuit constant.   |
| 19      | FA       | O   | In conjunction with the FD- and FA- pins, used to form the focusing phase compensation circuit constant. |
| 20      | FA-      | I   | In conjunction with the FA and FE pins, used to form the focusing phase compensation circuit constant.   |
| 21      | FE       | O   | FE signal output.                                                                                        |
| 22      | FE-      | I   | FE signal gain setting resistor connection. A resistor is connected between this pin and FE.             |
| 23      | SP       | —   | CLV pin input signal inverted output.                                                                    |
| 24      | SPG      | —   | Gain setting resistor connection. (12 cm spindle mode)                                                   |
| 25      | SP-      | —   | In conjunction with the SPD pin, spindle phase compensation time constant connection.                    |
| 26      | SPD      | O   | Spindle control signal output.                                                                           |
| 27      | SLEQ     | —   | Sled phase compensation time constant connection.                                                        |
| 28      | SLD      | O   | Sled control signal output.                                                                              |
| 29      | SL-      | I   | Sled feed signal input from the microcontroller.                                                         |
| 30      | SL+      | I   |                                                                                                          |
| 31      | OSC      | —   | Oscillator frequency setting.                                                                            |
| 32      | (NC)     | —   | No connection.                                                                                           |
| 33      | SLOF     | I   | Sled servo off control input.                                                                            |
| 34      | TGRF     | —   | Tracking servo gain RF level follower function setting.                                                  |
| 35      | SP8      | —   | Spindle 8 cm/12 cm mode switching control from the DSP.                                                  |
| 36      | EFBAL    | I   | E/F balance adjustment signal input from the DSP.                                                        |
| 37      | FSTA     | I   | Focus search control signal input from the DSP.                                                          |
| 38      | LASER    | I   | Laser on/off control from the DSP.                                                                       |

## IC DESCRIPTION-1/2 (LA9250M)-2/2

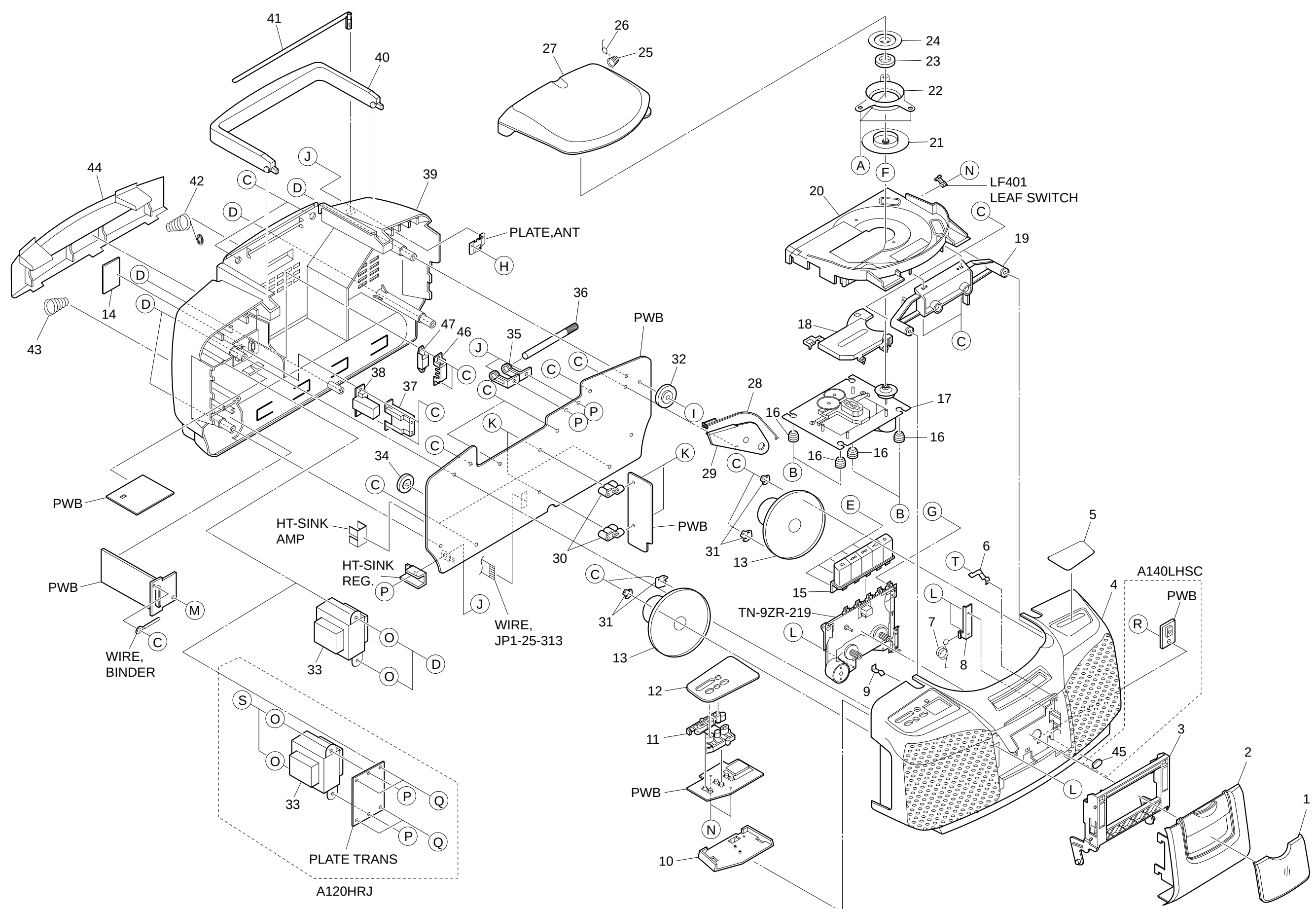
| Pin No. | Pin Name | I/O | Description                                                                                       |
|---------|----------|-----|---------------------------------------------------------------------------------------------------|
| 39      | (NC)     | —   | No connection.                                                                                    |
| 40      | TJP      | I   | Track jump signal input from the DSP.                                                             |
| 41      | TGL      | I   | Tracking gain control signal input from the DSP.                                                  |
| 42      | TOFF     | I   | Tracking off control signal input from the DSP.                                                   |
| 43      | TES      | O   | TES signal output to the DSP.                                                                     |
| 44      | HFL      | O   | Output for the HFL signal that indicates whether the main beam is positioned over pits or mirror. |
| 45      | CLV      | I   | CLV error signal input from the DSP.                                                              |
| 46      | GND      | —   | GND.                                                                                              |
| 47      | RF       | O   | RF output.                                                                                        |
| 48      | RF-      | —   | In conjunction with the RF pin, sets the RF gain and sets the EFM 3T compensation.                |
| 49      | SLC      | O   | Output for control of the RF waveform data slice level according to the DSP.                      |
| 50      | SLI      | I   | Input for control of the RF waveform data slice level according to the DSP.                       |
| 51      | DEF      | O   | Disc defect detection output.                                                                     |
| 52      | DRF      | O   | RF level detection output.                                                                        |
| 53      | FSC      | O   | Focus search smoothing capacitor output.                                                          |
| 54      | TBC      | —   | E/F balance variation range setting.                                                              |
| 55      | FSS      | —   | Focus search mode setting.                                                                        |
| 56      | VCC      | —   | VCC.                                                                                              |
| 57      | REFI     | —   | Reference voltage bypass capacitor connection.                                                    |
| 58      | VR       | O   | Reference voltage output.                                                                         |
| 59      | LF2      | —   | Disc defect detection time constant setting.                                                      |
| 60      | PH1      | —   | RF signal peak hold capacitor connection.                                                         |
| 61      | BH1      | —   | RF signal bottom hold capacitor connection.                                                       |
| 62      | LDD      | O   | APC circuit output.                                                                               |
| 63      | LDS      | I   | APC circuit input.                                                                                |
| 64      | (NC)     | —   | No connection.                                                                                    |

## IC DESCRIPTION-2/2 (LC78602E)-1/2

| Pin No. | Pin Name | I/O | Description                                                                                                                                                                                               |                                                        |
|---------|----------|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| 1       | DEFI     | I   | Defect detection signal (DEF) input. (Must be connected to 0V if unused)                                                                                                                                  |                                                        |
| 2       | 3 V/*5 V | I   | Supply voltage selection input. (High: 3V operation, low: 5V operation)                                                                                                                                   |                                                        |
| 3       | PDO      | O   | PLL circuit pins                                                                                                                                                                                          | Internal VCO control phase comparator output.          |
| 4       | VVSS     | —   |                                                                                                                                                                                                           | Internal VCO ground. This pin must be connected to 0V. |
| 5       | ISSET    | —   |                                                                                                                                                                                                           | PDO output current adjustment resistor connection.     |
| 6       | VVDD     | —   |                                                                                                                                                                                                           | Internal VCO power supply.                             |
| 7       | FR       | —   |                                                                                                                                                                                                           | VCO frequency range adjustment.                        |
| 8       | VSS      | —   | Digital system ground. This pin must be connected to 0V.                                                                                                                                                  |                                                        |
| 9       | EFMO     | O   | Slice level control pins                                                                                                                                                                                  | EFM signal output.                                     |
| 10      | EFMIN    | I   |                                                                                                                                                                                                           | EFM signal input.                                      |
| 11      | TMOD     | I   | Test input. This pin must be connected to 0V.                                                                                                                                                             |                                                        |
| 12      | CLV      | O   | Disc motor control output. This is a 3-value output.                                                                                                                                                      |                                                        |
| 13      | HFL      | I   | Track detection signal input. This is a Schmitt input.                                                                                                                                                    |                                                        |
| 14      | TES      | I   | Tracking error signal input. This is a Schmitt input.                                                                                                                                                     |                                                        |
| 15      | TOFF     | O   | Tracking off output.                                                                                                                                                                                      |                                                        |
| 16      | TGL      | O   | Tracking gain switching output. A low level output raises the gain.                                                                                                                                       |                                                        |
| 17      | JP       | O   | Track jump control output. This is a 3-value output.                                                                                                                                                      |                                                        |
| 18      | LASER    | O   | Laser control. A pull-down resistor is built in.                                                                                                                                                          |                                                        |
| 19      | FSTA     | O   | FSTA control. A pull-down resistor is built in.                                                                                                                                                           |                                                        |
| 20      | EFBAL    | O   | EFBAL control. A pull-down resistor is built in.                                                                                                                                                          |                                                        |
| 21      | SP8      | O   | SP8 control. A pull-down resistor is built in.                                                                                                                                                            |                                                        |
| 22      | VDD      | —   | Digital system power supply.                                                                                                                                                                              |                                                        |
| 23      | FSEQ     | O   | Synchronizing signal detection output. Outputs a high level if the synchronizing signal detected from the EFM signal and the internally generated synchronizing signal match.                             |                                                        |
| 24      | PCK      | O   | EFM data playback clock monitor. 4.3218 MHz when the phase is locked.<br>(Note that this output is only provided in test mode. This pin outputs a low level during normal mode operation) (No connection) |                                                        |
| 25      | SLOF     | O   | Sled off control output.                                                                                                                                                                                  |                                                        |
| 26      | SLED+    | O   | Sled feed output.                                                                                                                                                                                         |                                                        |
| 27      | SLED-    |     |                                                                                                                                                                                                           |                                                        |
| 28      | PUIN     | I   | Limit switch detection input. A pull-up resistor is built in. (No connection)                                                                                                                             |                                                        |
| 29      | DOUT     | O   | Digital output. (EIAJ format)                                                                                                                                                                             |                                                        |
| 30      | NC       | —   | Unused pin. This pin must be left open.                                                                                                                                                                   |                                                        |
| 31-38   | *SEG8-1  | O   | Segment output (8)-(1). A pull-up resistor is built in.                                                                                                                                                   |                                                        |
| 39      | VSS      | —   | Digital system ground. This pin must be connected to 0V.                                                                                                                                                  |                                                        |
| 40      | NC       | —   | Unused pin. This pin must be left open.                                                                                                                                                                   |                                                        |
| 41, 42  | *DIG2, 1 | O   | Common driver output (2), (1). A pull-up resistor is built in.                                                                                                                                            |                                                        |
| 43      | *PROG    | O   | Program operation monitor. A pull-up resistor is built in.                                                                                                                                                |                                                        |
| 44      | *KEYI1   | I   | Key matrix input (1). A pull-up resistor is built in.                                                                                                                                                     |                                                        |
| 45, 46  | NC       | —   | Unused pin. This pin must be left open.                                                                                                                                                                   |                                                        |
| 47      | *RANDOM  | O   | Random mode indicator output. (Low: random mode, high: modes other than random mode)                                                                                                                      |                                                        |

## IC DESCRIPTION-2/2 (LC78602E)-2/2

| Pin No. | Pin Name | I/O | Description                                                                                                                                                                                                                                                                                                                    |
|---------|----------|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 48      | RMTSL3   | I/O | Remote controller identifier input (3). This pin functions as an output pin set to the low level during resets (when the *RES pin is low) and for a few milliseconds after the *RES pin switches to the high level. Therefore, applications that will set this pin high must connect an external pull-up resistor to this pin. |
| 49      | EFLG     | O   | Monitor for C1, C2, single, and double error corrections.<br>(Note that this output is only provided in test mode. This pin outputs a low level during normal mode operation) (No connection)                                                                                                                                  |
| 50      | FSX      | O   | Outputs a 7.35 kHz synchronizing signal that is generated by dividing the crystal oscillator output.<br>(Note that this output is only provided in test mode. This pin outputs a low level during normal mode operation) (No connection)                                                                                       |
| 51      | *AMUTE   | O   | Audio mute output signal.                                                                                                                                                                                                                                                                                                      |
| 52      | REMOTE   | I   | Remote controller signal input.                                                                                                                                                                                                                                                                                                |
| 53      | RMTSL2   | I/O | Remote controller identifier input (2). This pin functions as an output pin set to the low level during resets (when the *RES pin is low) and for a few milliseconds after the *RES pin switches to the high level. Therefore, applications that will set this pin high must connect an external pull-up resistor to this pin. |
| 54      | LCHO     | O   | Left channel D/A converter output.                                                                                                                                                                                                                                                                                             |
| 55      | L/RVDD   | —   | D/A converter power supply.                                                                                                                                                                                                                                                                                                    |
| 56      | L/RVSS   | —   | D/A converter ground. This pin must be connected to 0V.                                                                                                                                                                                                                                                                        |
| 57      | RCHO     | O   | Right channel D/A converter output.                                                                                                                                                                                                                                                                                            |
| 58      | CLOSE    | I   | Close switch detection input. A pull-up resistor is built in.                                                                                                                                                                                                                                                                  |
| 59      | RMTSL1   | I   | Remote controller identifier input (1). A pull-up resistor is built in.                                                                                                                                                                                                                                                        |
| 60      | XOUT     | O   | Connections for a 16.9344 crystal element.                                                                                                                                                                                                                                                                                     |
| 61      | XIN      | I   |                                                                                                                                                                                                                                                                                                                                |
| 62      | XVDD     | —   | Crystal oscillator circuit power supply.                                                                                                                                                                                                                                                                                       |
| 63      | *RES     | I   | IC reset input. Applications must set this pin low temporarily when power is first applied.                                                                                                                                                                                                                                    |
| 64      | DRF      | I   | DRF input.                                                                                                                                                                                                                                                                                                                     |



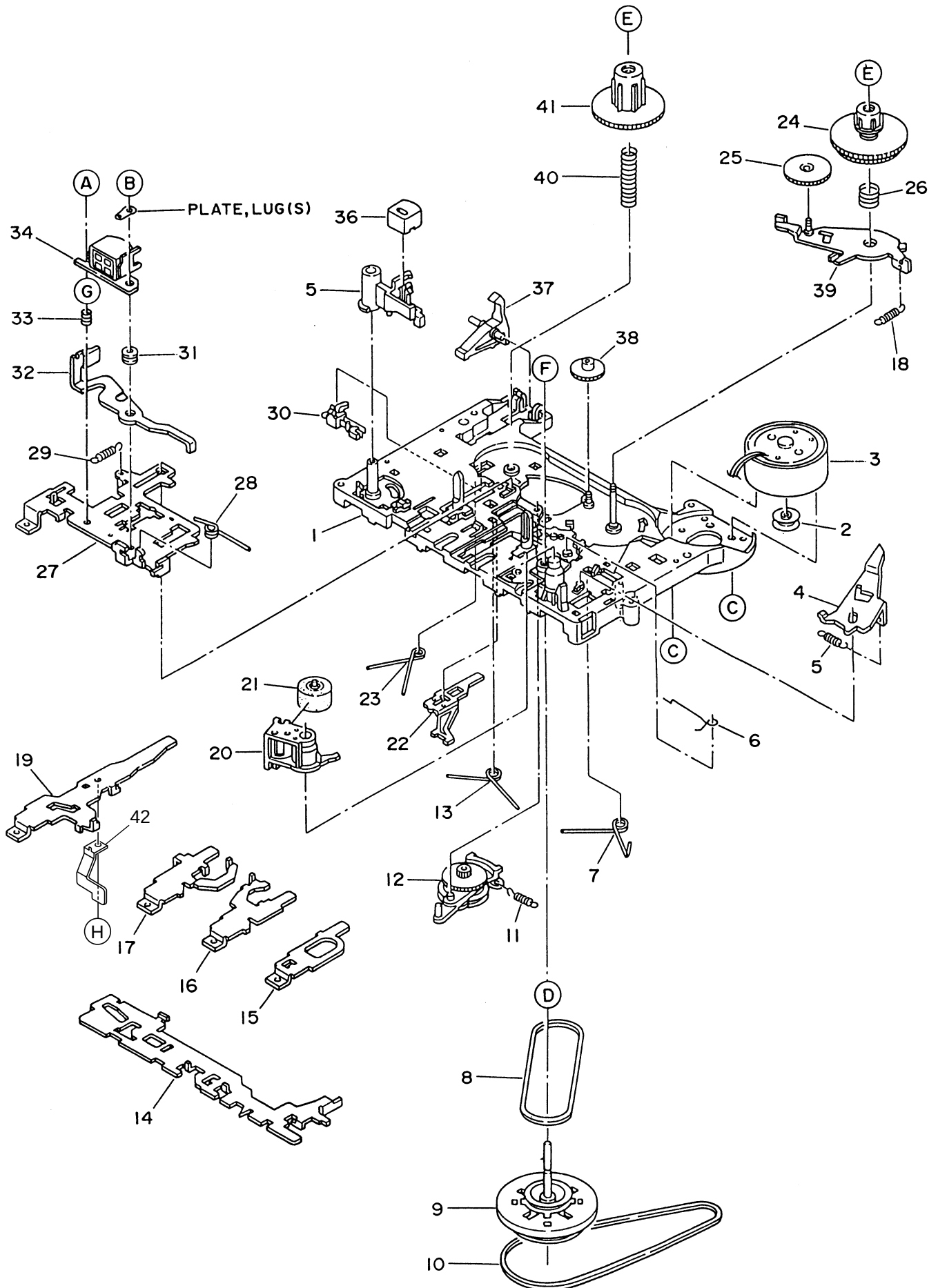
# MECHANICAL PARTS LIST-1/1

| REF. NO | PART NO.       | KANRI NO. | DESCRIPTION                                                | REF. NO | PART NO.       | KANRI NO. | DESCRIPTION                                              |
|---------|----------------|-----------|------------------------------------------------------------|---------|----------------|-----------|----------------------------------------------------------|
| 1       | 8B-CDC-004-010 |           | LENS,CASS<EXCEPT A120HRJPC,A120HRJLC>                      | 31      | 8B-CDC-212-010 |           | PLATE,SPKR                                               |
| 1       | 8B-CDC-065-010 |           | LENS,CASS BLUE<A120HRJLC>                                  | 32      | 8B-CDC-016-010 |           | KNOB,RTRY TU                                             |
| 1       | 8B-CDC-095-010 |           | LENS,CASS PINK<A120HRJPC>                                  |         |                |           | <EXCEPT A120HRJPC,A120HRJLC>                             |
| 2       | 8B-CDC-003-010 |           | LID,CASS<EXCEPT A120HRJPC,A120HRJLC>                       | 32      | 8B-CDC-076-010 |           | KNOB,RTRY TU BLUE<A120HRJLC>                             |
| 2       | 8B-CDC-064-010 |           | LID,CASS BLUE<A120HRJLC>                                   | 32      | 8B-CDC-106-010 |           | KNOB,RTRY TU PINK<A120HRJPC>                             |
|         |                |           |                                                            | 33      | 8B-CDC-610-010 |           | PT,E<A120KSC,A120EZSC>                                   |
| 2       | 8B-CDC-094-010 |           | LID,CASS PINK<A120HRJPC>                                   |         |                |           |                                                          |
| 3       | 8B-CDC-007-010 |           | BOX,CASS<EXCEPT A120HRJPC,A120HRJLC>                       | 33      | 8B-CDC-609-010 |           | PT,H<EXCEPT A120USC,A120KSC,A120EZSC>                    |
| 3       | 8B-CDC-068-010 |           | BOX,CASS BLUE<A120HRJLC>                                   | 33      | 8B-CDC-607-010 |           | PT,U<A120USC>                                            |
| 3       | 8B-CDC-098-010 |           | BOX,CASS PINK<A120HRJPC>                                   | 34      | 8B-CDC-015-010 |           | KNOB,RTRY VOL                                            |
| 4       | 8B-CDC-002-010 |           | CABI,FR ASSY<A140LHSC>                                     |         |                |           | <EXCEPT A120HRJPC,A120HRJLC>                             |
| 4       | 8B-CDC-033-010 |           | CABI,FR ASSY EX                                            | 34      | 8B-CDC-075-010 |           | KNOB,RTRY VOL BLUE<A120HRJLC>                            |
|         |                |           | <A120HRJSC,A120LHSC,A120USC,A120HSSC>                      | 34      | 8B-CDC-105-010 |           | KNOB,RTRY VOL PINK<A120HRJPC>                            |
| 4       | 8B-CDC-061-010 |           | CABI,FR ASSY EX BLUE<A120HRJLC>                            |         |                |           |                                                          |
| 4       | 8B-CDC-091-010 |           | CABI,FR ASSY EX PINK<A120HRJPC>                            | 35      | 86-CS3-216-010 |           | HLDR,BAR ANT                                             |
| 4       | 8B-CDC-035-010 |           | CABI,FR ASSY EZ<A120KSC,A120EZSC>                          | 36      | 8B-CDC-642-010 |           | BAR-ANT,AM                                               |
| 5       | 8B-CDC-022-010 |           | PLATE,TU EZ<A120KSC,A120EZSC>                              | 37      | 86-CS3-211-010 |           | COVER, AC SOCKET                                         |
|         |                |           |                                                            | 38      | 87-A60-178-010 |           | JACK,AC E W/SW<EXCEPT A120USC>                           |
| 5       | 8B-CDC-023-010 |           | PLATE,TU HR<A120HRJSC,A120HSSC>                            | 38      | 8B-CDC-626-010 |           | JACK,AC U<A120USC>                                       |
| 5       | 8B-CDC-079-010 |           | PLATE,TU HR BLUE<A120HRJLC>                                |         |                |           |                                                          |
| 5       | 8B-CDC-108-010 |           | PLATE,TU HR PINK<A120HRJPC>                                | 39      | 8B-CDC-010-010 |           | CABI,REAR<EXCEPT A120HRJPC,A120HRJLC>                    |
| 5       | 8B-CDC-020-010 |           | PLATE,TU U<A120LHSC,A120USC,A140LHSC>                      | 39      | 8B-CDC-071-010 |           | CABI,REAR BLUE<A120HRJLC>                                |
| 6       | 8B-CDC-217-010 |           | SPR-P,REC                                                  | 39      | 8B-CDC-101-010 |           | CABI,REAR PINK<A120HRJPC>                                |
| 7       | 8B-CDC-216-010 |           | SPR-T,CASS                                                 | 40      | 8B-CDC-013-010 |           | HANDL,<EXCEPT A120HRJPC,A120HRJLC>                       |
| 8       | 8B-CDC-213-010 |           | PLATE,CASS                                                 | 40      | 8B-CDC-074-010 |           | HANDL,BLUE<A120HRJLC>                                    |
| 9       | 8A-CM3-211-010 |           | SPR-P,CASS                                                 |         |                |           |                                                          |
| 10      | 8B-CDC-204-010 |           | HLDR,CD KEY                                                | 40      | 8B-CDC-104-010 |           | HANDL,PINK<A120HRJPC>                                    |
| 11      | 8B-CDC-006-010 |           | KEY,CD<EXCEPT A120HRJPC,A120HRJLC>                         | 41      | 8B-CDC-679-010 |           | ANT,ROD FM                                               |
| 11      | 8B-CDC-067-010 |           | KEY,CD BLUE<A120HRJPC,A120HRJLC>                           | 42      | 8B-CDC-218-010 |           | SPR,BATT (+/-)                                           |
| 12      | 8B-CDC-018-010 |           | PLATE,CD EX<EXCEPT A120HRJPC,A120HRJLC>                    | 43      | 8B-CDC-219-010 |           | SPR,BATT (-)                                             |
| 12      | 8B-CDC-077-010 |           | PLATE,CD EX BLUE<A120HRJLC>                                | 44      | 8B-CDC-011-010 |           | LID,BATT<EXCEPT A120HRJPC,A120HRJLC>                     |
| 12      | 8B-CDC-107-010 |           | PLATE,CD EX PINK<A120HRJPC>                                |         |                |           |                                                          |
| 13      | 8B-CDC-625-010 |           | SPKR, 80HM BCD-C                                           | 44      | 8B-CDC-072-010 |           | LID,BATT BLUE<A120HRJLC>                                 |
|         |                |           |                                                            | 44      | 8B-CDC-102-010 |           | LID,BATT PINK<A120HRJPC>                                 |
| 14      | 8B-CDC-030-010 |           | PLATE,AC VOLTAGE<EXCEPT A120USC,A120KSC,A120EZSC,A120HSSC> | 45      | 8B-CDC-001-010 |           | LENS,REMOTE CONTROL<A140LHSC>                            |
| 15      | 8B-CDC-005-010 |           | KEY,CASS SET                                               | 46      | 86-CS3-210-010 |           | COVER, VOLTAGE<EXCEPT A120USC,A120KSC,A120EZSC,A120HSSC> |
|         |                |           | <EXCEPT A120HRJPC,A120HRJLC>                               | 47      | 87-A90-146-010 |           | SW,SL 1-1-2<EXCEPT A120USC,A120KSC,A120EZSC>             |
| 15      | 8B-CDC-066-010 |           | KEY,CASS SET BLUE<A120HRJLC>                               |         |                |           |                                                          |
| 15      | 8B-CDC-096-010 |           | KEY,CASS SET PINK<A120HRJPC>                               | A       | 87-621-072-410 |           | QT1+2.6-5                                                |
| 16      | 8B-CDC-210-010 |           | CUSHION,CD                                                 | B       | 8B-CDC-211-010 |           | S-SCREW,CD                                               |
| 17      | M8-ZZK-E90-070 |           | DA11T3C                                                    | C       | 87-745-095-410 |           | SCREW UT2+3-8                                            |
| 18      | 8B-CDC-038-010 |           | PANEL,CD (SANYO)                                           | D       | 87-651-103-410 |           | SCREW VT1+3-25                                           |
| 19      | 8B-CDC-203-010 |           | HLDR,CD                                                    | E       | 87-571-033-410 |           | TAPPING SCREW, VIT+2-4                                   |
| 20      | 8B-CDC-012-010 |           | CHAS,CD<EXCEPT A120HRJPC,A120HRJLC>                        |         |                |           |                                                          |
| 20      | 8B-CDC-073-010 |           | CHAS,CD BLUE<A120HRJLC>                                    | F       | 87-251-033-410 |           | U+2-4                                                    |
| 20      | 8B-CDC-103-010 |           | CHAS,CD PINK<A120HRJPC>                                    | G       | 87-641-038-410 |           | UT1+2-12                                                 |
| 21      | 8B-CDC-207-010 |           | BASE,CHUCK<EXCEPT A140LHSC>                                | H       | 87-741-094-410 |           | UT2+3-6                                                  |
| 21      | 8B-CDC-220-010 |           | BASE,CHUCK (SANYO) <A140LHSC>                              | I       | 87-261-072-410 |           | V+2.6-5                                                  |
| 22      | 8B-CDC-206-010 |           | HLDR,CHUCK                                                 | J       | 87-265-095-410 |           | V+3-8 NI                                                 |
| 23      | 87-036-368-010 |           | MAGNET                                                     |         |                |           |                                                          |
| 24      | 8B-CDC-208-010 |           | PLATE,CHUCK                                                | K       | 87-651-075-410 |           | VT1 +2.6-10                                              |
| 25      | 87-CD9-211-010 |           | GEAR,                                                      | L       | 87-651-036-410 |           | VT1+2-8                                                  |
| 26      | 8B-CDC-215-010 |           | SPR-T,CD                                                   | M       | 87-651-073-410 |           | VT1+2.6-6                                                |
| 27      | 8B-CDC-004-010 |           | LID,CD<A140LHSC>                                           | N       | 87-751-035-410 |           | VT2+2-6W/0 SLOT                                          |
| 27      | 8B-CDC-002-010 |           | LID,CD                                                     | O       | 86-CS3-218-010 |           | W,3.5-14-0.5                                             |
|         |                |           | <EXCEPT A120HRJPC,A120HRJLC,A140LHSC>                      |         |                |           |                                                          |
| 27      | 8B-CDC-063-010 |           | LID,CD BLUE<A120HRJLC>                                     | P       | 86-CS3-217-010 |           | NUT, M3X0.5P NI                                          |
| 27      | 8B-CDC-093-010 |           | LID,CD PINK<A120HRJPC>                                     | Q       | 87-651-099-410 |           | VT1+3-15<A120HRJSC,A120HRJPC,A120HRJLC>                  |
| 28      | 8B-CDC-014-010 |           | POINTER,                                                   | R       | 87-751-096-410 |           | VT2+3-10 GLD<A140LHSC>                                   |
| 29      | 8B-CDC-201-010 |           | HLDR,TU                                                    | S       | 87-581-096-410 |           | UIT +3-10                                                |
| 30      | 8B-CDC-205-010 |           | HLDR,PWB                                                   |         |                |           | <A120HRJSC,A120HRJPC,A120HRJLC>                          |
|         |                |           |                                                            | T       | S9-C01-201-530 |           | CAMERA SCREW M2-1.5                                      |

**COLOR NAME TABLE**

| Basic color symbol | Color             | Basic color symbol | Color              | Basic color symbol | Color              |
|--------------------|-------------------|--------------------|--------------------|--------------------|--------------------|
| B                  | Black             | C                  | Cream              | D                  | Orange             |
| G                  | Green             | H                  | Gray               | L                  | Blue               |
| LT                 | Transparent Blue  | N                  | Gold               | P                  | Pink               |
| R                  | Red               | S                  | Silver             | ST                 | Titan Silver       |
| T                  | Brown             | V                  | Violet             | W                  | White              |
| WT                 | Transparent White | Y                  | Yellow             | YT                 | Transparent Yellow |
| LM                 | Metallic Blue     | LL                 | Light Blue         | GT                 | Transparent Green  |
| LD                 | Dark Blue         | DT                 | Transparent Orange | GM                 | Metallic Green     |
| YM                 | Metallic Yellow   | DM                 | Metallic Orange    | PT                 | Transparent Pink   |
| LA                 | Aqua Blue         | GL                 | Light Green        |                    |                    |

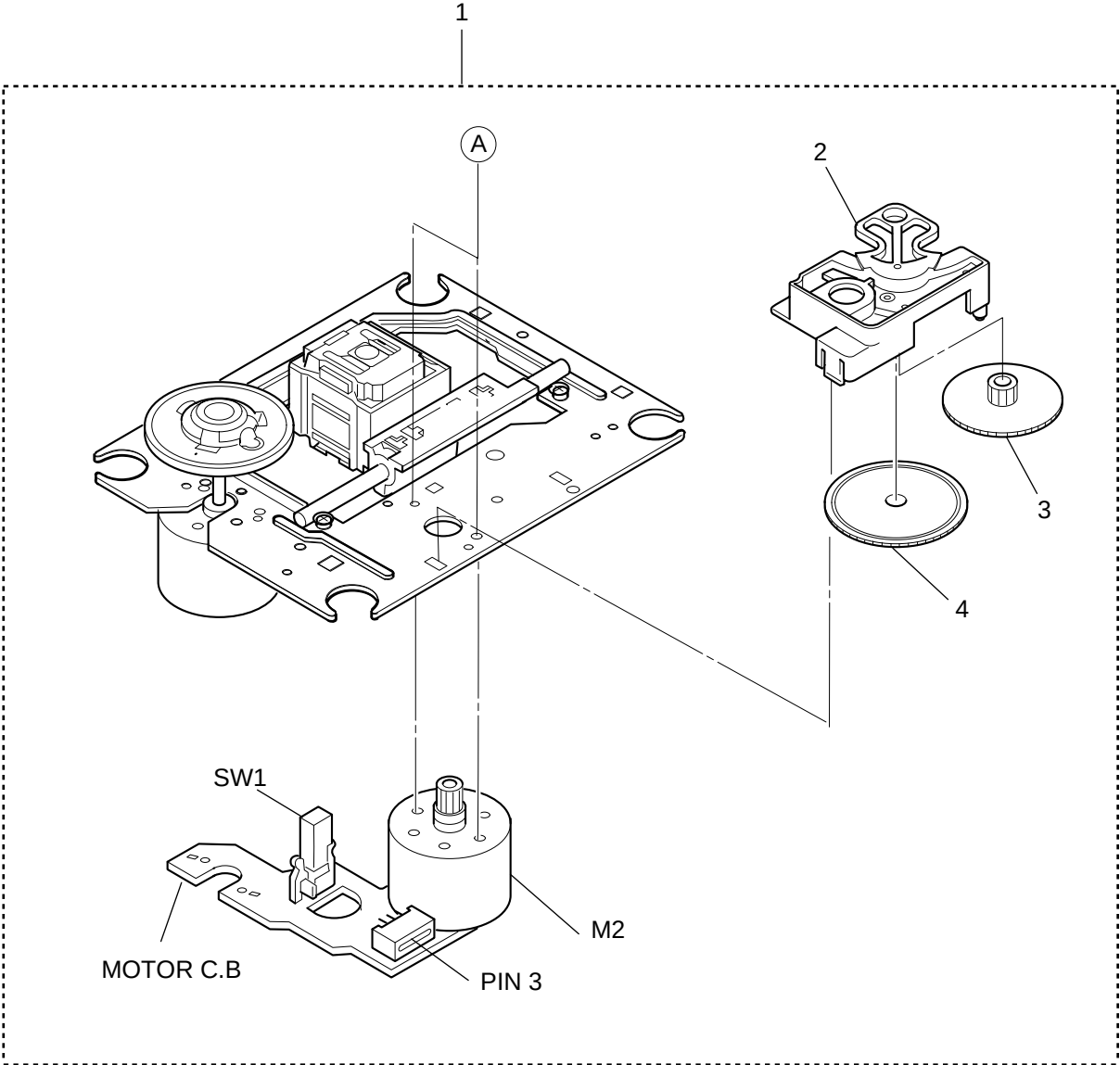
# TAPE MECHANISM EXPLODED VIEW-1/1 (TN-9ZR-219)



# TAPE MECHANISM PARTS LIST-1/1 (TN-9ZR-219)

| REF. NO | PART NO.       | KANRI NO. | DESCRIPTION           | REF. NO | PART NO.       | KANRI NO. | DESCRIPTION                  |
|---------|----------------|-----------|-----------------------|---------|----------------|-----------|------------------------------|
| 1       | S1-877-013-120 |           | CHASSIS ASSY          | 26      | S1-821-100-460 |           | BACK TENSION SPR             |
| 2       | S1-877-120-010 |           | MOTOR PULLEY          | 27      | S1-877-030-030 |           | PANEL,HEAD                   |
| 3       | S6-002-070-100 |           | MOTOR FR-410CA-12250T | 28      | S1-877-040-080 |           | PINCH ROLLER ARM SPR         |
| 4       | S1-877-010-170 |           | AUTO LEVER            | 29      | S1-877-030-070 |           | SPR,PANEL HEAD               |
| 5       | S1-877-010-190 |           | AUTO LEVER SPR        | 30      | S6-401-011-490 |           | SW,LEAF MSW-1541T            |
| 6       | S1-877-030-090 |           | SPR,EARTH             | 31      | S1-867-020-040 |           | RPH COLLAR                   |
| 7       | S1-877-010-370 |           | SPR,LEVER BTN STOP    | 32      | S1-877-033-010 |           | SENSING PLATE ASSY           |
| 8       | S1-867-050-040 |           | BELT,RF               | 33      | S9-400-312-000 |           | SPR,HEAD                     |
| 9       | S1-877-093-050 |           | FLYWHEEL ASSY         | 34      | S6-201-011-170 |           | HEAD,RP-7442FS-1251          |
| 10      | S1-877-090-070 |           | BELT,MAIN             | 35      | S1-877-030-050 |           | ARM MG                       |
| 11      | S1-877-070-060 |           | SPR,ARM PULLEY RF     | 36      | S6-207-100-020 |           | HEAD E TC-230AN(SL)          |
| 12      | S1-877-073-030 |           | RF PULLEY ARM ASSY    | 37      | S1-877-020-010 |           | LEVER,SAFETY REC             |
| 13      | S1-877-010-110 |           | FR BUTTON LEVER SPR   | 38      | S1-821-100-700 |           | GEAR,FF                      |
| 14      | S1-877-010-520 |           | BTN,ACTUATOR          | 39      | S1-877-015-030 |           | T ROLLER GEAR PLATE ASSY     |
| 15      | S1-877-010-060 |           | STOP BUTTON LEVER     | 40      | S1-877-060-020 |           | BACK TENSION SPR             |
| 16      | S1-877-010-230 |           | LEVER,BTN FF          | 41      | S1-877-060-010 |           | S REEL                       |
| 17      | S1-877-010-240 |           | LEVER,BTN RWD         | 42      | 8B-CDC-217-010 |           | SPR-P,REC                    |
| 18      | S1-877-010-320 |           | SPR,PLATE T GEAR      | A       | S9-817-000-000 |           | SCREW AZIMUTH M2-4.3         |
| 19      | S1-877-010-250 |           | LEVER,BTN REC         | B       | S9-210-000-000 |           | SCREW,+/- M2-5               |
| 20      | S1-877-040-010 |           | PINCH ROLLER ARM      | C       | S9-C33-172-030 |           | CAMERA(SPECIAL) SCREW M2-1.7 |
| 21      | S1-877-040-070 |           | PINCH ROLLER ASSY     | D       | S9-999-000-010 |           | P.WASHER 1.85-3.2-0.2        |
| 22      | S1-877-010-270 |           | PLATE,SW              | E       | S9-888-000-000 |           | P.WASHER CUT 1.2-3-0.4       |
| 23      | S1-877-010-310 |           | SPR,ACTUATOR          | F       | S9-999-030-010 |           | P.WASHER CUT 1.5-3.2-0.5     |
| 24      | S1-877-053-040 |           | TAKE UP REEL ASSY     | G       | S9-316-000-000 |           | FH WASHER 2.1-5-0.2          |
| 25      | S1-821-103-4A0 |           | GEAR T ROLLER         | H       | S9-C01-201-530 |           | CAMERA SCREW M2-1.5          |

CD MECHANISM EXPLODED VIEW-1/1 (DA-11T3C)



## CD MECHANISM PARTS LIST-1/1 (DA-11T3C)

| REF. NO | PART NO.       | KANRI<br>NO. | DESCRIPTION     |
|---------|----------------|--------------|-----------------|
| 1       | M8-ZZK-E90-070 |              | DA11T3C         |
| 2       | S2-121-A28-400 |              | COVER GEAR      |
| 3       | S2-511-A21-000 |              | GEAR MIDDLE     |
| 4       | S2-511-A21-100 |              | GEAR, DRIVE     |
| A       | S1-PN2-03R-0SE |              | SCR PAN PCS 2-3 |

# ACCESSORIES/PACKAGE LIST-1/1

| REF. NO | PART NO.       | KANRI NO.      | DESCRIPTION                                                   |
|---------|----------------|----------------|---------------------------------------------------------------|
| 1       | 8B-CDC-906-010 |                | IB,EZ (9L)AL<A120EZSC>                                        |
| 1       | 8B-CDC-901-010 |                | IB,H(ECA)AL<br><A120HRJSC,A120HRJPC,A120HRJLC>                |
| 1       | 8B-CDC-931-010 |                | IB,HS (K)AL<A120HSSC>                                         |
| 1       | 8B-CDC-905-010 |                | IB,K (E)AL<A120KSC>                                           |
| 1       | 8B-CDN-902-010 |                | IB,LH (ESP)AL<A140LHSC>                                       |
|         | 1              | 8B-CDC-902-010 | IB,LH (ESP)AL<A120LHSC>                                       |
|         | 1              | 8B-CDC-903-010 | IB,U (ESF)AL<A120USC>                                         |
| ⚠       | 2              | 87-A80-036-010 | AC CORD SET ASSY,E W/FLTR VOL<br><A140LHSC>                   |
| ⚠       | 2              | 87-A80-081-010 | AC CORD SET ASSY,EZ BLK<br><EXCEPT A120USC,A120HSSC,A140LHSC> |
| ⚠       | 2              | 87-A80-154-010 | AC CORD SET,HS 250V 3A<A120HSSC>                              |
| ⚠       | 2              | 87-A80-109-010 | AC CORD,HK7281 BLK U<A120USC>                                 |
| ⚠       | 3              | 87-099-726-010 | PLUG,ADPTR CONV (K) <A120KSC>                                 |
| ⚠       | 3              | 87-099-789-010 | PLUG,ADPTR IR44<A140LHSC>                                     |
| ⚠       | 3              | 87-099-789-010 | PLUG,ADPTR IR44<A120HRJSC,A120HRJPC,<br>A120HRJLC,A120LHSC>   |
|         | 4              | 8B-CDN-961-010 | RC UNIT,RC-BAT01<A140LHSC>                                    |



**アイワ株式会社** 〒110-8710 東京都台東区池之端1-2-11 ☎03(3827)3111 (代表)  
**AIWA CO.,LTD.** 2-11, IKENOHATA 1-CHOME, TAITO-KU, TOKYO 110-8710, JAPAN TEL:03 (3827) 3111